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STUDIES IN ANCIENT HINDU POLITY

(BASED ON THE ARTHASĀSTRA
OF KAUTILYA)

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BY

NARENDRANĀTH LAW, M.A., B.L.

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WITH AN INTRODUCTORY ESSAY

ON THE AGE AND AUTHENTICITY OF THE ARTHASĀSTRA
OF KAUTILYA

BY PROF. RADHAKUMUD MOOKERJI, M.A.

CEMCHAND ROYCHAND SCHOLAR, AUTHOR OF "A HISTORY OF INDIAN SHIPPING," ETC.

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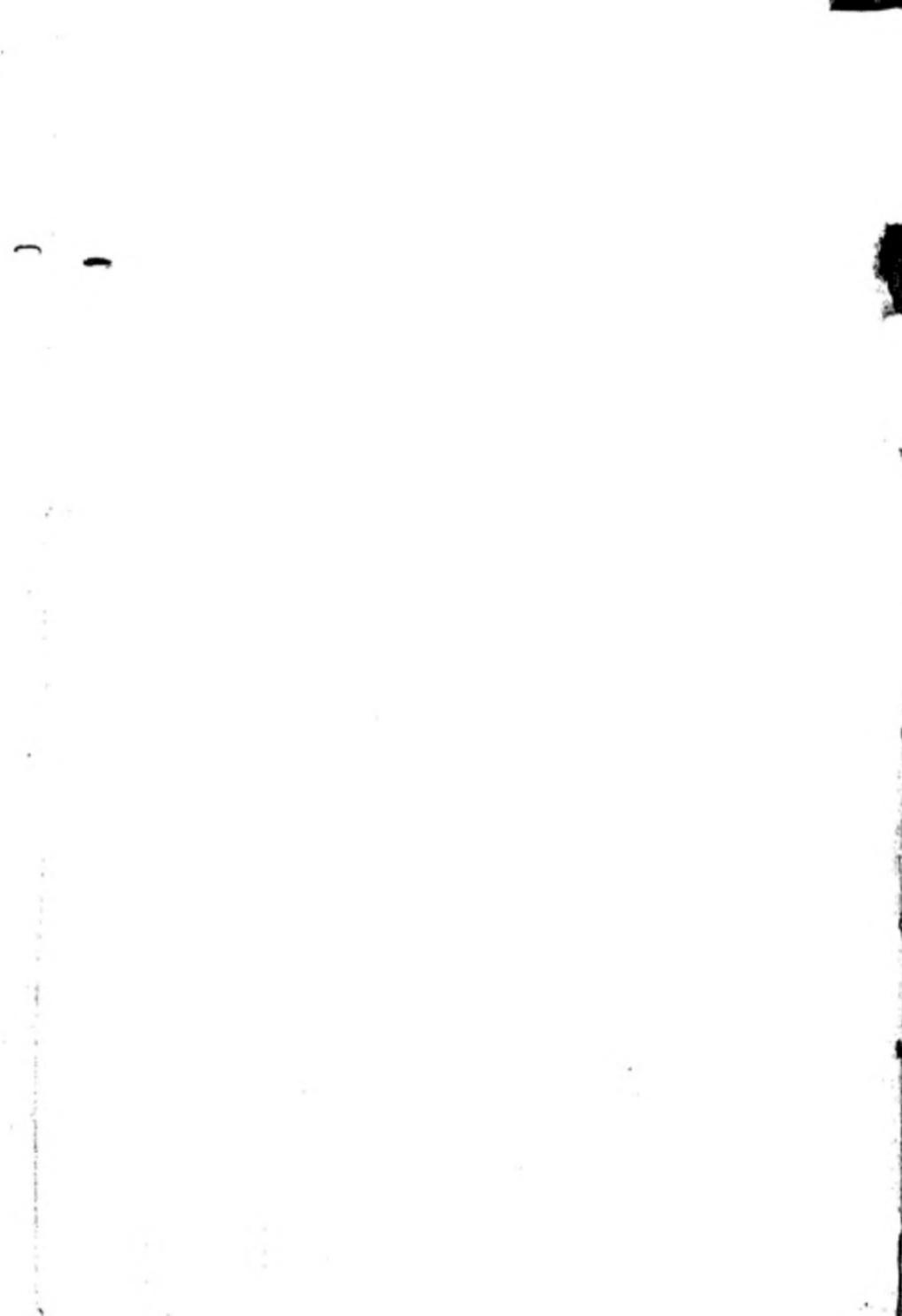
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TO
MY FATHER
THE HON. RAJA RESHEE CASE LAW, C.I.E.
THIS SMALL TRIBUTE
OF
GREAT AFFECTION





PREFACE

IN the present work an attempt is made to describe some of the features and activities of the civil government of the ancient Hindus, as outlined in the *Arthaśāstra* of Kauṭilya. Such an attempt will, I trust, be useful in throwing some light on the secular and practical achievements of the ancient Hindus, as distinguished from the spiritual and intellectual, which latter are more widely studied and appreciated than the former.

I am, however, painfully conscious of the difficulties with which the subject is beset. The quaint and terse language of Kauṭilya, combined with the technical terms used by him, adds much to the difficulties. The Commentary of Bhaṭṭasvāmī is fragmentary and confined only to a portion of the Second

Book. I should, however, acknowledge my indebtedness to the edition and translation of the work by Mr. R. Shama Sastri, B.A., whose pioneering work has paved the way for the investigations of other scholars.

My deep gratitude is due to Prof. Radhakumud Mookerji, M.A., Premchand Roychand Seholar and author of "A History of Indian Shipping," for valuable help rendered and for the Introduction he has written to this work. I am also thankful to Pundit Jogen-dranath Tarka-Vedânta-tîrtha and Pundit Vihdusekhar Sastri for their kind assistance, and to my uncle, Mr. Nanda Lal Dey, M.A., B.L., author of the "Geographical Dictionary of Aneient and Mediæval India," for his valuable suggestions. My aeknowledgments are likewise due to Mr. Ramananda Chatterji, M.A., editor of the *Modern Review*, for his courteous permission to reproduce such portions of this work as appeared in his *Review*, and to Messrs. Surendra Nath Kumar, B.A., and Hiralal Roy, A.B., for their kind assistance; also to my brother Mr. Surendra Nath Law, and to Messrs. Kumud Lal Dey, Nalin Chandra Paul, B.L., Satya Churn Law,

M.A., and Moni Molun Sil, for the help I have received from them.

I am fully conscious of my own limitations and the difficulty of the task before me; and I shall consider my labour amply rewarded if my inadequate performance secures for the subject a proper attention and treatment.

NARENDRa NATH LAW.

96, AMHERST STREET, CALCUTTA.

August, 1913.

AN INTRODUCTORY ESSAY ON THE AGE AND AUTHENTICITY OF THE ARTHAŚĀSTRA OF KAUTILYA.

By PROF. RADHAKUMUD MOOKERJI, M.A.,
Premchand Roychand Scholar, Author of *A History of
Indian Shipping*, etc.

IN response to the request of Mr. Law, I have much pleasure in saying a few words on the probable age of the now famous work, the *Arthaśāstra* of Kauṭilya, the importance of which for the history of culture can hardly be overestimated. To students of Indian history in particular, an approximate determination of the period to which the *Arthaśāstra* relates itself is a most pressing problem demanding immediate solution, for on that will depend much of the reconstruction of early Indian history, as well as a true interpretation and appreciation of ancient Hindu culture. The *Arthaśāstra*, as will be amply evident from Mr. Law's *Studies*, is a unique record of the secular and practical activities and achievements of the Hindu genius as distinguished

from the intellectual and spiritual, of which there is so much evidence in the extant Sanskrit and Pāli literature, and of which so much has been said and written; and a proper study of this most interesting work is well calculated to remove one of the widespread and deep-rooted misconceptions about ancient Hindu civilization, which is supposed to have distinguished itself only in the sphere of thought, and to have miserably failed in that of action.

In the following pages an attempt will be made to summarize the arguments which may be advanced in support of the traditional and widely current view that the *Arthashastra* of Kauṭilya is the work of Chāṇakya, the Minister of Chandra Gupta, and therefore belongs to the fourth century B.C.

That Kauṭilya and Chāṇakya are names of the same person is well known to students of Sanskrit literature. In fact, Chāṇakya is known by several names,¹ which are thus

¹ Śaṅkarārya in his *Jayamangalaṭīkā* on Kāmandaka refers to the names thus: “विष्णुप्रायेनि चाकार्त्ती चंदा, चाणक्यः कीटिष्ठ एति जन्मभूमि गोद निष्पत्तेः.” Bṛhaspati Miśra in his *तात्पर्य टीका* calls Bṛateyāyana, the author of *Nyāya-*

enumerated by Hemachandra in his *Abhidhā-nachintāmani*:

वात्स्यायने सक्तागः कृष्टिलक्षणकामनः ।

प्रामिलः पचिलसामी विष्णुभोद्भुक्त च ॥

Equally well known is the fact of Chāṇaka's connexion with the Emperor Chandra Gupta Maurya, with its political consequences. Evidence of this may be derived from a variety of sources. Thus the *Vishṇupurāṇa* narrates in its prophetic style that "the Brāhmaṇa Kauṭilya shall root out the nine Nandas, inaugurating Chandra Gupta in the kingdom."¹ So also the *Bhāgavatapurāṇa* has the following: "A Brāhmaṇa will destroy these nine Nandas,

bhāskhya, by the name of Pakshilaswāmi. Thus he says: "अथ भगवता अवपादेन निःदेयस्त्वेतीशास्त्रे प्रवीतेष्युत्पादिते अ भगवता पचिलसामिना किमपरमविद्यते यदर्थं वार्त्तिकारमः ।" The *Vārttika* is, of course, the well-known Commentary on the *Nyāyabhāskhya* by Udyotakara, who wrote it in order to overcome the sophistical arguments and mystifying logic of the Buddhists ["कुताकिंकधाम-गिराचर्हतोः । करिष्यति तत्त्वं भया निवन्धः ।"] headed by Dīnāṅga as explained by Bāhaspati Miśra ["कुताकिंकादिक्ष्यनाम-प्रभतयः"]. This statement, by the way, places the age of the *Nyāyabhāskhya* also before that of Buddhist propaganda dating from Asoka.

¹ XXIV, 6-7: "नवैव तान् वस्त्राभृ कौटिल्यो भ्राद्धारः चमुच-रिष्यति ... कौटिल्या एव चम्भगुप्तं राज्येभिषेच्यति ।"

who will inaugurate Chandra Gupta as king."¹ There are also similar references in the *Matsya*, *Vāyu* and *Brahmānda* Purāṇas to Kauṭilya's bestowal of the sovereignty on Chandra Gupta.² In his *Sthavirāvalīcharita*, or "Lives of Jaina Patriarchs," Hemachandra gives an account of Chāṇakya which, though legendary, agrees with the Purāṇas in making him the extinguisher of Nanda supremacy and supporter of Chandra Gupta. In the *Nandisūtra*, again, which is a Jaina religious work in Prākrit language, Chāṇakya is extolled for the signal success which he achieved as Finance Minister of Chandra Gupta. In the Jaina work *Rishimandaluprakaranavṛitti* there is a reference to the alliance of Chāṇakya with Chandra Gupta, who seized the kingdom by slaying Nanda. Among the Buddhist works recording the same fact may be mentioned Buddhaghosha's Commentary, *Samantapaśādikā*, on the *Vinaya Pitaka*, as well as the *Mahāvānsaṭīkā* of Mahā-

¹ II, i, 11-12: "नवमस्तान् द्विजः कवित् प्रपद्मागुरुरिष्टसि... स एव चन्द्रगुप्तं च द्विजो राज्येभिषेद्यति।".

² "कौटिल्यः चन्द्रगुप्तं ततो राज्येभिषेद्यति" [Matsya] and "चन्द्रगुप्तं नृपं राज्ये कौटिल्यः सापयिष्यति" [Vāyu and Brahmanḍa].

nāmāsthavira. Kāmandaka [*Nītisāra*] also refers to the overthrow of the Nanda dynasty and the inauguration of Chandra Gupta in a very forcible passage.¹ The same fact, as is well known, has supplied the basis of the drama *Mudrārākshasū*. Finally, we may refer to the evidence of the *Arthaśāstra* itself, as set forth in one of its concluding verses, where it is stated that the *Arthaśāstra* is composed by "him who with angry determination rescued (the Brāhmaṇa's) learning and (the Kshatriya's) art, as also the mother-country, from the clutches of the Nanda kings."²

¹ यस्याभिचार वज्रेण वज्रव्यक्तम तेजसः ।
पपात मूलतः श्रीमान् दुष्पर्वा नम्दपर्वतः ।
एकाकी नन्दवत्या यः भृत्या भक्तिवरोपमः ।
चाजहार नृचन्द्राय चन्द्रगुप्ताय भेदिनीम् । [I, 4-5.]

[“Salutation unto one whose fire of energy was like the flash of lightning, and through whose magical powers, that resembled in potency and fury the thunderbolt itself, the widespread, prosperous, powerful, mountain-like dynasty of Nanda was overturned.”]

² येन भ्रात्यं च भ्रष्टं च नम्दराजगता च भूः ।
भमर्वेषोद्यमान्याश तेन भ्रात्रमिदंकतम् ।

The “rescue of learning” would be either a vain boast or would seem to favour the traditional Indian view, widely current among orthodox Hindu Pandits and scholars, that all the three works, viz. *Nyāyabhashya*, *Kāmasātra*, and *Arthaśāstra*, which

So much about the fact of the political association of Kauṭilya with the Emperor Chandra Gupta. We shall now consider the evidence proving that the fact of Kauṭilya's authorship of *Arthaśāstra* is well known in Sanskrit literature. The two principal sources of that evidence are (1) the *Nītisāra* of Kāmandaka and (2) the *Dasakumāracharita* of Dāṇḍī, both of which accept the genuineness of the *Arthaśāstra* as the production of Chāṇakya. Kāmandaka, at the beginning of his *Nītisāra*, says: "Salutation unto the learned Vishṇu Gupta, who raised the ambrosia of political science out of the vast ocean of the *Arthaśāstra*. As this science is very much liked by kings, I shall make a brief but clear abridgment of the treatise of that learned scholar who was a

acknowledged authorities in their respective subjects, had a common author, and that that author was Chāṇakya. Compare in this connexion the enumeration of Chāṇakya's names in *Abhidhānachintāmaṇi* quoted above. The boast about "resouo of learning" is also supported by Kāmandaka, who refers to Chāṇakya's encyclopaedic learning in such phrases as "यो चम्प भवि विशुतः," "वैद्यविद्या वरः," "विद्यामी पारद्वचनः," etc. Another significant fact to be noted in this connexion is the identity of numerous passages in the three works named above, pointing to their common origin. The whole subject, however, deserves a critical investigation.

master of all branches of knowledge."¹ It is hardly necessary for our present purpose to prove by quotations that with Kāmandaka the work of Kautilya was not a mere tradition but an actual masterpiece, which has been throughout his *Nītisūra* used as his original authority, even supplying many of his words and phrases. Nay, Kāmandaka has, it may be said, abridged by making omissions: the entire portions of the second, third, fourth and fourteenth Books of the *Arthashastra* find no place in the *Nītisūra*. Thus the work of Kāmandaka supplies very good evidence to show that the work of Kautilya was a reality. The second piece of evidence bearing on the point is furnished by the *Daśakumāracharita* of Dāṇḍī. In the *Somadatta-utpattikathā* [I. 1] there is a reference to both Kautilya and Kāmandaka as authorities on *Nītiśāstra*,² while in the eighth chapter of Part II occurs the following remarkable reference to Kautilya³:

१ दर्शनात् तस्य सहस्रो विद्यानीं पारहन्तः ।
राजविद्या प्रियतया संचिन्तपन्नमर्यवत् । [I. 7.]

२ “कौटिल्य-कामद्वकीयादिनीतिपठलकौशलं . . .”

३ “. . . रथसिद्धानीं आचार्यविष्णुगुप्तेन मौर्यार्थे पड़भिः खोक-
सहस्रः संचिन्ता . . .”

“The science of Dandanīti (Politics) has been of late abridged into 6000 slokas by Achāryya Vishṇu Gupta for the benefit of the Maurya.” The results of a study of that work, difficult as it is, requiring a knowledge of various other sciences, are ironically described by Vihārabhadra (to dissuade his king from its study) in a long passage which bristles with quotations from the *Arthasāstra*. Thus one of the results is stated to be that the reader will have to gravely decide what quantity of rice will be required to satisfy his appetite¹ [“आमकुर्चेरपि जाते तच्छुक्ते: रथह्नि: रथानोदनः सम्यक्ते”]; what quantity of fuel will cook a certain quantity of rice² [“रथत ओदनस्य पाकाय इतावत् रथम् पर्याप्तमिति जानोक्ता-नपूर्वकं देयम्”]. Next follows a sarcastic enumeration and criticism of the king’s daily duties according to Chāṇakya, which closely follows that of the text before us. Thus the following expressions have been borrowed from the *Arthasāstra*³:

¹ Cf. *Arthasāstra*, Bk. II, ch. xv, where quantities of food are determined for the higher castes (आदि), lower castes (चूर्ण), for women, and also for children.

² Cf. *Arthasāstra*, Bk. II, ch. xix: “काषपध्विंश्तिएषं तच्छुक्तप्रसाधनम्”

³ See the chapter on राजप्रविधिः of the first Book.

“कायव्यजातं चक्षः प्रथमेष्टमे भागे श्रोतव्यम्”; “द्वितीये अन्योऽन्यं विवदमानानां प्रजानां चाक्रोऽग्निः दद्यमामकर्णः कष्टं जीवति”; “द्वितीये स्वातुं भोक्तुष्व लभते”; “चतुर्थे हिरण्य-प्रतिभवाय इत्थं प्रसारयत्वैव उक्तिष्ठति”; “पश्चमे मन्त्रचिन्तया महाकामायासं अमुभवति... मिथः सक्षुय दोषमुण्डो दुतचार-वाक्यानि... उपजीवनि”; “पष्टे स्वैरविद्वारः मन्त्रो वा सेवः”; “सप्तमे चतुर्द्वयलः प्रत्यवेच्छण प्रशासः”; “अष्टमे सेनापतिसंख्या विक्रमचिन्माल्लेशः”; “उनः उपास्य एव सम्भार-प्रथमे रात्रिविभागे गूढ पुरुषाः इष्टव्याः”; “द्वितीये भोजनान्तरं शोचिय एव साधायां चारहस्ते”; “द्वितीये तूर्यघोषेण संविष्टः”; “चतुर्थपश्चमी शद्योत्तमः”; “उनः पष्टे शास्त्रचिन्माकाव्यचिन्मारम्भः”; “सप्तमे मन्त्रपदः दूतादि प्रेषणानि च”; “अष्टमे उरोहितादयः अभ्येत्य एनमाङ्गः”।

Thus these borrowings of Dāṇḍī from the *Arthaśāstra* are a further proof that the work had an actual existence, and that it was the production of Chāṇakya.

Among other Sanskrit works which also allude to the *Kauṭilya Arthaśāstra* may be mentioned the *Nandisūtra*¹ of the Jainas, the *Puñchatantra*² and the *Nītivākyāmrīta*³ of Somadeva. Lastly, we may refer to the evidence of numerous quotations from *Kauṭilya* in Mallināth's Commentary on Kālidāsa's

¹ P. 391, Calcutta ed., quoted in *I. A.*, Jan., 1905, p. 6.

² Ch. i.

³ Edited in the *Kāvyamālā* Series, Bombay.

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Raghuvanśa and other works.¹ Even Kālidāsa would appear sometimes to borrow phrases of Kauṭilya's book.²

We have now considered the available evidence proving (1) the political connexion of Kauṭilya with Emperor Chandra Gupta Maurya, and (2) the existence of the *Kauṭilya Arthaśāstra* as a literary work. It now remains to prove that that work is the production of an individual author and not of a

¹ E.g. Mallināth on *Raghuvanśa*, Sarga 17, sloka 49: "अत्र कौटिल्यः—कार्याणां नियोग-विकल्प-समुच्चया भवन्ति अनेन वो-पायेन नानेनेति नियोगः अनेन अन्येन वेति विकल्पः अनेन चेति समुच्चयः रत्ति," which is taken from the *Arthaśāstra*, Bk. IX, ch. vii, pr. 147. *Ibid.*, sloka 55: "अत्र कौटिल्यः—चीषाः प्रकाशतयो लोमं हुआयाकि विरागताम् । विरक्ता पान्तमित्रं वा भान्तारं द्वन्ति वा स्वयम्," which corresponds to *Artha.*, Bk. VII, ch. v, pr. 108-110. *Ibid.*, sloka 56: "अत्र कौटिल्यः—समच्चा-योध्यां चन्द्रघीतं हीनेन विष्टक्षीयात्," which corresponds to *Artha.*, Bk. VII, ch. ii, pr. 101-2. *Ibid.*, sloka 76: "सन्त्रप्तमा-वीत्सावद्वक्तिभिः परान् सन्दधान् रत्ति कौटिल्यः," which corresponds to *Artha.*, Bk. VII, ch. xv, pr. 117-120. *Ibid.*, sloka 81: "दुर्बलो वक्षवस्तुमो वरदावद्वितादिभिः । वर्तेत दग्धोपनतोभर्त्यर्थेवमवस्थातः रत्ति कौटिल्यः," which corresponds to *Artha.*, *ibid.* *Ibid.*, Sarga 18, sloka 50: "अत्र कौटिल्यः—भर्त्याभर्त्यो चर्या चर्याभर्त्यो वार्ताभर्त्यो नयामयो दप्तनीत्या रत्ति," which corresponds to *Artha.*, Bk. I, ch. 1, pr. 1.

² Thus the phrase "अभिष्वन्त वसनेन" of *Kumārasambhava*, VI, xxvii, occurs in Bk. II, ch. i; similarly, *Raghuvanśa*, III, xxviii, uses phrases of Kauṭilya, I, v, 8.

school, as is frequently the case with Indian treatises.

Fortunately, the above proposition has been argued at great length and in a quite convincing manner by the learned German orientalist Prof. Jacobi,¹ who successfully combats Hillebrandt's² view that Kauṭilya is not himself the sole author of the *Arthashastra*. Hillebrandt based his view on the inference that the expressions “रति कीर्तिः” and “नेति कीर्तिः,” occurring no less than seventy-two times in the text, show that it is not the work of an individual author named Kauṭilya but of a school. It is, however, forgotten that the use of the first person and the consequent assumption of prominence or self-assertiveness by an author who wants to refute opposite views is always repugnant to Indian feeling, and the other alternative of writing one's own name in that connexion is invariably followed as a piece of literary etiquette in India. Secondly, to say that a work is the production of a school would mean (i) that its alleged author was the founder of

¹ *Siteungsberichte der Königlich Preussischen Akademie der Wissenschaften*, xxxviii, 1912, pp. 882-849.

² *Das Kauṭilyaśāstra und Verwandtes*, Breslau, 1908.

the school traced to him in which discussions lead to definite conclusions and the creation of a tradition which is handed down from teacher to students, and (ii) that the tradition so created is afterwards embodied in a book-form by later students. None of these assumptions would, however, apply to Kauṭilya, considering the historical position of the man who, according to unanimous tradition as explained above, played such an important part not only in the foundation of the Maurya empire, but also in its governance as its first Chancellor with his onerous State duties. As Prof. Jacobi well observes : "One can hardly imagine that Bismarck after his day's work should have held a conference with the professors of a college over politics and State administration, and it is hardly less improbable to assume that Kauṭilya, the Indian Bismarck, should like an ordinary Pandit surround himself with students, teach them the *Arthashastra*, and found a school." The fact is, that the book begat the school, and not the school the book.

Nor do Kāmandaka's references to Kauṭilya's work prove it to be the production of a school, as may be easily assumed ; for Kāmandaka's

mention of Vishṇu Gupta, i.e. Kauṭilya, as his *guru* cannot be interpreted in the literal sense of the term so as to point to the origin of the *Arthaśāstra* in a school. This is clear from the character of the *Nītiśāra* as well as from its contents. It is professedly an abridgment [“संक्षिप्त पन्थ”] of the comprehensive work traced to Kauṭilya, which, though its principal source, is not, however, its only source, and is not also blindly followed. Kāmandaka is not a one-sided follower of his master; he refers to the opinions of other राजविद्याविदः besides the authority of Kauṭilya; and there are points of agreement¹ as well as difference² between the two. Besides, Kāmandaka presents only a small part of the *Arthaśāstra* and omits those very subjects which have a bearing on actual administration and which give so much value to Kauṭilya's work; for instance, such subjects as administration, control of trade and professions, justice, etc., as also universal maxims of government. The fact of the matter was that Kāmandaka was no practical statesman, but a Pandit fond of disputation and showing

¹ E.g. classification of knowledge.

¹ E.g. classification of knowledge.
² E.g. the theory of the Mandala or political sphere.

off political wisdom ; and the use that he has made of Kauṭilya's work only strengthens our conviction that the work is not scholastically delivered tradition but bears the stamp of an individual author and his times.

The same conviction is also borne in upon us by the contents of the *Arthasāstra* itself and its internal evidence, which we shall now proceed to set forth after Prof. Jacobi.

The first piece of internal evidence is furnished by the references of Kauṭilya to his predecessors, which betray the critical tendency unmistakably suggestive of an individual author. Thus Kauṭilya mentions his predecessors no less than 114 times—“राज्ञ कीचित् दर्शन” occurring only once¹—and in all those numerous references Kauṭilya quotes opinions only to differ from them. This abundance of criticism, opposition and contradiction seems evidently to indicate a strongly marked individuality and a critical personality, and is quite in keeping with the spirit of the concluding verse referred to above about the author's justly claimed services to learning. Further, if Kauṭilya's work were the production of a

¹ I, x, 6, p. 17.

compiler of his school long after Kauṭilya's death, would there be any interest in the use of such forms as रति कौटिल्यः and नेति कौटिल्यः, and repeatedly establishing that Kauṭilya's doctrines differed from those of his predecessors? And, in that case, would also the expression "रति वाचार्यः," as applied to opponents, be used by a late student of Kauṭilya's school when it would also apply to Kauṭilya himself as an वाचार्यः?

Secondly, we should note the fact that the two greater parts of the *Arthashastra* contain no mention of opposite views, viz. pages 69-156 and 197-253 of the book, comprising parts of Books entitled व्यवस्थाप्रचार, कष्टकर्मोधन, and धोमदर्श, the last chapter of which treats of the significant subject "What is to happen in cases of imminent vacancy of throne?" Those parts do not treat the general principles so much as practical regulations in detail, such as administration, control of trade and industry, the police, the budget, and the like, about which scholasticism has no need to trouble itself but which are of the greatest moment to the practical statesman. We accordingly find that in his treatment of those subjects Kauṭilya does not take

any opportunity for controversy, and stands there all alone with no previous tradition to consider or criticize. This is also evident from the significance of the word “प्राचीः”¹ in the opening line of the book which refers to the previous *Āchāryyas*.

Next, we have to consider how Kautilya alludes to his predecessors. He uses both the plural and the singular number in respect of them, and in the former case he means the *school*,² and in the latter the *individual author*.³ What is worthy of note is that these sources are mentioned in a definite order⁴ in several places, which is probably not the chronological order, but rather seems to be the order of merit determined by Kautilya's own estimation, or the order determined by his convenience of discussion. The arranging of the *Āchāryyas* in such an arbitrary order is

1. “हृषिक्षा जामे याजने च यावनि वर्यग्रामानि पूर्णाचार्यः
प्रस्तापितानि प्रायग्रामानि संहत्य एकमिदमर्थग्रामं द्वातम्।”

2. E.g. मानवाः, वार्षसत्याः, औष्ठसाः, पाराशराः, etc.

3. E.g. भारद्वाजाः, विश्वासाचार्यः, पितॄनः, कौषिपदनः, वात्याधिः, वज्रदन्तीपुत्रः, etc.

4. E.g. I, vi, 4, pp. 18 ff.:—भरद्वाज-विश्वासाच-पराशर-पितॄन-
कौषिपदन-वात्याधि-वज्रदन्तीपुत्र। The same order is seen
on pp. 82 ff., and on pp. 825 ff.

possible only to a great master, and not to an ordinary writer of a text-book. It may also be noted in passing that the schools mentioned by Kauṭilya were not exclusively the schools of वैदिक only, but of धर्मात्म, which comprehended political discussion as a subsidiary topic. It seems that the धर्मात्म did not differentiate itself as an independent school or branch of learning before Kauṭilya.

Fourthly, a careful consideration of the style of the *Arthashastra* would also indicate its individual authorship. Broadly speaking, the course of literary development in India embraces three well-marked stages: in the first stage the previously accumulated tradition or discipline undergoes development in and through a school or schools devoted thereto; the second stage is that of the composition of *Sūtras*, which lead to some *siddhāntas*, or definite formulæ and conclusions, the exposition of which is conducted by the school, though the contents receive thereby a further expansion; the third stage is that of the composition of *Bhāshyas*, which lead to freedom from the control of the schools, and ushers in the stage of individual authorship. Thus,

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while the text-books produced by schools (e.g. the *Śrauta-Dharma-Grihyu-Sūtras*) show the style of *Sūtras*, the works of individual authors (e.g. Yāska's *Nirukta*, Patañjali's *Mahābhāshya*, etc.) bear a different character. They contain dogmatic statements, together with discussion supporting their own views, and the style passes from that of the *Sūtras* to the style of the *Bhāshyas*. Similarly, in Kauṭilya's work there are some parts characterized by the brevity and dogmatism of the *Sūtras*, while there are other parts in which the author indulges in certain breadth and minuteness of details after the manner of the *Bhāshyas*. Thus the *Arthashastra* partakes of the character of both *Sūtra* and *Bhāshya* at the same time, and this is also admitted by the couplet added at the end of the book, viz. :—

बहु विप्रतिपत्तिं वज्रधा शालेषु भाष्यकाराणां ।
स्त्रयमेव विष्णुगुप्तश्चकार रुचश्च भाष्यच ॥

Hence the style of the work shows that it belongs to the class of literary works which are not the productions of schools but of individual authors.

✓ We shall now discuss the evidence as to

individual authorship furnished by passages in the book itself. These passages are given below:—

- (1) तुष्टपदविशेषं तस्मार्थपदनिधितम् ।
कीटिश्वेन छतं शास्त्रं विमुक्तः प्रत्यविद्वारम् । [I, i.]
- (2) सर्वग्राहणानुक्रम्य प्रयोगमुपलभ्य च ।
कीटिश्वेन नरेन्द्रार्थे ग्राहणस्य विधिः छतः । [II, x.]
- (3) एवं शास्त्रमिदं शुक्रं एताभिस्त्रान्तयुक्तिः ।
अवास्त्री पाष्ठमे चोक्तं लोकस्यास्य परस्य च । [XV, i.]
- (4) धर्मसर्थं च कामं च प्रवर्त्यति पाति च ।
अधर्मानर्थविद्वानिदं शास्त्रं निष्पत्ति च । [Ibid.]
- (5) येन शास्त्रं च शस्त्रं च नन्दराजगता च भूः ।
असर्वेषोऽकृतान्याश्च तेन शास्त्रमिदं छतम् । [Ibid.]

The suggestion that all these passages might have been later additions to the text cannot stand, because, as pointed out by Prof. Jacobi, “if they are taken out, then the customary metrical conclusion will be wanting in the chapters concerned.” They may therefore be taken to be integral parts of the text.

In the first passage the expression “तुष्टपदविशेषं,” as pointed out by Prof. Jacobi, is a clear indication of individual authorship, for “so speaks the author of a text-book meant

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for self-instruction," for individual learners, and not for the school, for a *Sūtra* need not be *सूत्रप्रश्नशिल्पविज्ञेय*, because for its understanding the teacher has to look to the school. This inference is also in keeping with the meaning of the opening words of our text, viz. "एतिथा द्वामे पालने च यावन्त्यर्थात्तात्रि पूर्वाचार्यैः प्रकापितानि प्रायश्चानि संहत्यैकमिदमर्थमालं करन् ।" Here there is a reference to individual authors, the earlier masters, and not to school traditions or schools; as must have been the case had the work of Kauṭilya been the product of a school.

The same contention is again supported by the second passage, which refers to practical administration and regulations [शासनाधिकार] which are above scholastic wisdom. Here Kauṭilya claims special merit for his work, for these matters had not been sufficiently handled by previous masters. The personal note of the passage is also unmistakable, for would a mere "school compiler" have thus boasted of laying down regulations for guidance of emperors?

Of the next three passages, the first passage relates itself to the opening words of the text, the second promises the attainment of विकार as

the end of the *Arthaśāstra*, while the last verse indicates who the author is, not by mentioning his name, which had already appeared twice, but by enumerating his virtues or achievements with incomparably forcible brevity. This is not the language of vain self-glorification, but of one who speaks self-possessed from the height of human fame. But, as Prof. Jacobi well observes, in spite of the self-consciousness undiluted by any sham modesty, one still perceives in the words of Chandra Gupta's Chancellor a courtly discretion which omits to mention the name of his master whom he had raised to the throne, for in that connexion it would have been supremely indecorous. This graceful self-restraint, this aristocratic reserve, is very significant and well worthy of the man and his position in life. It is only a later author, untrammelled by such discretion or restraint, who can unreservedly mention the name of Emperor Chandra Gupta in connexion with the eulogy of Kauṭilya as Kāmandaka, for instance, has done in the passage quoted above.¹ Lastly, the full significance of the phrase “**अमर्त्य अनुन**” has to be noted.

¹ See p. xiii above.

When applied to learning, it shows Kauṭilya's impatience of the narrowness and shallowness of his predecessors, which irritated him into activity, and is also an expression of the contempt of the Statesman for the Professor—of which Bismarck, for instance, made no concealment—a contempt which manifests itself throughout the book in the frequent references to the *Āchāryyas* and their doctrinairisms and the refutation of their teachings, and also in the necessity he felt for treatment of important topics omitted by previous masters but indispensable in a useful hand-book of Politics.

We have now considered the internal evidence of the book itself, which proves its genuineness as the production of Kauṭilya. The suspicion which has gathered round the work is due to the fact that literary forgeries have been very common in India, and individual authorship very rare. It is, however, forgotten that these forgeries invariably connect themselves with divine names, with gods and *rishis*, or the *gurus*, e.g. books which passed under the names of Manu, Yājñavalkya, Vyāsa and the like. But a literary adulteration in respect of a historical personality supported by

careful correspondence to the special features of the original (like the *Letters of Phalaris*, for example) is a refined imposture unheard of in India, and totally foreign to her soil. There is also another kind of literary practice in India which involves false naming of authors, and is frequently resorted to in cases where the author does not like to mention his own name but mentions instead that of his patron who brought about the composition of the work, e.g. the works going under the name of Bhoja, King of Dhârâ. Such a genesis, however, cannot apply to the work of Kauṭilya, whercin the author attributes to himself the merits of the work. It can, of course, hardly be denied that Kauṭilya must have had co-workers in many parts of his book, especially those which treat of technical details. Public officers of State in charge of the several departments of administration must have supplied to him materials which Kauṭilya has only edited; but this fact of itself does not vitiate the genuineness of the book as the production of Kauṭilya.

The universal reverence attaching to epoch-making masterpieces preserves them against

the ravages of time and interpolators alike. They never get antiquated, but they become canonical. So has been preserved through centuries Yâska's *Nirukta* as well as Patañjali's *Mahâbhâshya*. This is also true of the *Kauñilîya Arthaśâstra*, which has further preserved itself by the numbering of its प्रकरण's and the sketching of its contents. Thus the suspicion against the genuineness of the work is unfounded, while the unanimous Indian tradition according to which the *Arthaśâstra* is the work of the famous Minister of Chandra Gupta is confirmed most decisively, as we have already seen, by a series of internal reasons furnished by the book itself.

In this connexion I should like to draw pointed attention to a few other passages in the text which, to my mind, contain indirect allusions and veiled references to the Emperor Chandra Gupta in respect of whom the *Arthaśâstra* has carefully avoided any direct reference for reasons already explained, and which will no doubt be found to supply additional and valuable links in the chain of reasoning by which we are supporting our thesis that the book is a genuine production of the Minister

of Chandra Gupta. These passages are as follows :—

(1) चप्रशीतो वि [दण्डः] मात् स्याय मुद्धावयति । यही- ४
यानवहं वि पश्चते दण्डधराभावे । सेन गुप्तः प्रभवति ।
 [I, iv, 1.]

(2) विद्याविनीतो राजा वि प्रजानां विक्षये रतः ।
चन्द्र्या इयिवीं भुद्धे शर्वभूतहिते रतः । [I, v, 2.]

(3) तदिष्वद्विरवद्वेन्द्रियशात्तुरभोऽपि राजा सदो वि-
वशति । [I, v, 3.]

(4) देषः इयिवी ; तस्मां विभवत्समुद्धान्तरमुदीचीनं
योजनसहवपरिमाणं चतिर्यक् चक्रवर्जितेचम् ।

[पुस्तक, 135-6.]

1x, 1

The first of these passages easily lends itself to the interpretation that Kauṭilya seeks to justify his action in connexion with the usurpation of the throne by Chandra Gupta, whose strong and righteous administration [यथार्दण्डः and दुरिक्षात् प्रशीतो दण्डः] abolished the anarchy and misrule due to the profligacy and unpopularity of the previous Nanda king, who was unable to discharge the primary functions of government, viz. the protection of the weak against the strong [चप्रशीतो वि मात् स्याय मुद्धावयति, etc.]; “सेन गुप्तः प्रभवति” would thus mean “for this reason—the abolition of anarchy and

inauguration of order—does युध, i.e. Chandra Gupta,¹ rise and flourish." This is in all probability the hidden meaning of the passage, though its obvious and superficial sense, drawn from the grammar and context, is different from that suggested. The other three passages have also, to my mind, a common veiled reference to the paramount sovereignty established over the whole of India from the Himalayas to the sea [द्विमवन्-समुद्राकारं, etc.], up to its boundaries in the four directions [चातुरकोशप राजा], by Chandra Gupta, who reigns as the Lord Paramount, *Chakravartī*, with none to dispute his rights or share the empire with him [चत्वार रथिर्भी मुद्दते]. Thus, though there are no direct allusions in the *Arthasūtra* to the sovereignty of Chandra Gupta which might connect it with his times, these indirect and veiled references are, in my opinion, a sufficient compensation for that supposed defect, and they well suit the work of a consummate politician like Chāṇakya, who knew very well what to express and what to suppress in writing about contemporary politics.

¹ I owe this suggestion to Mr. K. P. Jayaswal, M.A. (Oxon), Bar-at-law. I am also deeply indebted to Dr. Brajendra-nath Seal, M.A., Ph.D., for his many invaluable criticisms and suggestions, and to Mr. Law for material assistance.

And read between the lines, the *Arthasâstra* will be found to throw out sure and sufficient hints as to the age of its production.

Before I conclude, I should not pass over one other matter of importance in this connexion, viz. the striking correspondence between parts or passages of the *Arthasâstra* and the accounts of India traced to Megasthenes relating to the period of Chandra Gupta. Such correspondence of the *Arthasâstra* with a definitely dated document is no doubt of great help in fixing its age. A close study of both will show that the Book of *Arthasâstra* entitled अधिकार gives a full view of Indian administration of which only a partial view can be obtained from the observations of Megasthenes [Frag. xxxiv]. This may be indicated as follows:—

1. "Of the great officers of State, some have charge of the market, others of the city, others of the soldiers." This corresponds to the अधिकार of the *Arthasâstra*, under whom were such officers as व्यापार, शहराध्यक्ष and the like, who looked after commercial matters, the नायक or city magistrate charged with the municipal administration and policing of the city, and

lastly such officers as नावध्य, पद्यध्य, देनापति, etc., who were in charge of the military.

2. “*Some superintend the rivers, measure the land . . . and inspect the sluices by which water is let out from the main canals into their branches.*” Kauṭilya also mentions provisions for irrigation under the Superintendent of the Admiralty [नावध्य] for inspection of rivers and water-courses. He also refers to canals and sluices, as in the passage “*सेतुभ्योमुच्चसङ्कोयमपारेष्टप्योदमः*,” etc. [Bk. III, ch. x, 61], and mentions four modes of irrigation, viz. irrigation by hand [रक्षप्रावर्तिनः], by water carried on shoulders [रक्षप्रावर्तिनः], by mechanical contrivances [चोत्यन्तप्रावर्तिनः], and by water from tanks, wells and rivers [नदीस्तरस्ताकङ्क्षपोद्वाडमः]. In the following passage, “*वातप्रदर्तिनमभिन्दिनिवायतनताककेहारारामपञ्चवापान्त . . .*” there is perhaps a reference to the raising of water from wells and tanks by bullocks, and also to devices worked by wind-power, *i.e.* windmills.

As regards officers who “measure the land,” a reference may be made to duties of officers called मोण, आनिक, etc., in the *Arthashastra*, who were entrusted with the very same duties [Bk. II, xxxv, 54-55].

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3. "*The same persons have also charge of the huntsmen . . .*" In the *Arthasâstra* hunters were placed under the immediate control of an officer called विदीताधर, the Superintendent of Pastures, whose duties are set forth in detail [Bk. II, xxiii, 52-53].

4. "*They collect the taxes and superintend the occupations . . .*" In the *Arthasâstra* there is a detailed account of the arrangements for the collection of taxes or revenue. The chief responsible officer was the चमार्हनी, under whom were the heads of several departments who collected the revenue for which they were responsible and sent it on to the चमार्हनी [II, vi, 24].

5. "*They construct roads . . .*" This was done under the superintendence of the चमार्हनी [*ibid.*].

6. "*The members of the first body look after everything relating to the industrial arts.*" The *Arthasâstra* also [IV, i, 76] speaks of the State supervision of industries, so as to secure proper observance by artizans of rules governing the preparation or manufacture of products [IV, i, 76].

7. "*The third body consists of those who inquire when and how births and deaths occur,*

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with the view not only of levying a tax, but also in order that births and deaths . . . may not escape the cognizance of Government." The *Arthashastra* also gives details of census operations carried on by officers termed आनिक, गोप, etc. [see II, xxxiv, 54-55, and xxxvi, 56].

8. "The fourth class superintends trade and commerce. Its members have charge of weights and measures, and see that the products in their season are sold by public notice." The officer termed चक्राधिक in the *Arthashastra* had also to detect false weights, measures and balances, and check the sale of adulterated goods and of inferior goods passed as superior [see chapter on विदेशकरचषण]. He also regulated sales.

Similarly, Megasthenes' account of the organization of the War Office, with its six divisions, corresponds very well with what Kautilya says about the officers termed नाराधिक, अचाधिक, चक्राधिक, रथाधिक, सेनापति, etc. His account of "the seven castes among the Indians," also, will be found on a closer analysis to correspond to the duties of the four traditional castes as laid down in the *Arthashastra* [see p. 7, I, i, 1]. Among other minor correspondences may be mentioned Megasthenes'

reference to elephants *turning the scale of victory*, which is to be compared with Kautilya's विजयो राजाम् [II, ii, 20]; his reference to "exercising the body by friction" is supported by the duties of the संचारक, as mentioned in the chapter on आमरचितकम् [Bk. I]; that about "the care of the king's person being entrusted to women" is supported by the chapters on आमरचितकम् [Bk. I] and महिकार्यम् [Bk. II]. His observation that "the king may not sleep during the day-time" is supported by the account of the king's daily duties in chapter राजप्रस्थिः [Bk. I]; that about "the guard of armed women" by Chāṇakya's जीवण्डः चन्द्रभिः of chapter आमरचितकम् [Bk. I]; that about "enclosures" for the king's hunting may be compared with मृगवनं विद्वारार्थं राजः कारयेत् as referred to in the chapter भूमिप्रस्थिविधानं [Bk. II]. The reference about the king's processions being very well guarded finds its parallel in what Kautilya says about them towards the end of the chapter on आमरचितकम्.¹ Women attendants of the king, on chariots, as mentioned by Megasthenes, are also mentioned by Kautilya in his chapter on

¹ "निर्दोषेऽभियाने च राजमार्गमुभयतः हतारचं दण्डिभिर-पास्त्रमहस्तप्रवित्यत्तुं गच्छेत् . . ."

गद्यिकाः भवतः [Bk. II]. The reference about "houses being left unguarded" as contained in Megasthenes is perhaps connected with the custom mentioned in the *Arthaśāstra* of leaving some parts of every house [“**वृष्टिरामशास्त्रो**”] open for all [III, viii, 61]. The mention by Megasthenes of the marriage dowry of "a yoke of oxen" corresponds to Kautilya's गोमिषुमादानादारः [III, ii, 59]. The practice of the Admiralty "letting out ships on hire for transport of passengers and merchandise" is also referred to in the chapter on नावधर्म. *Overseers* as a class of officials as mentioned by Megasthenes correspond to the *chāras* of the *Arthaśāstra* about whom so much has been said in its several chapters. Megasthenes' reference to horses and elephants with persons specially "appointed to take care of them" is amply borne out by the chapters चक्रधर्म and रक्षाधर्म as indicated above. The reference of Megasthenes to the *Royal Road* from east to west is corroborated by the accounts of roads in the *Arthaśāstra* [VII, xii, 116] in which roads leading to the Himalayas [रोमवतः] and to the west [पूर्वपश्चिमध वर्षिकपथः] are specifically mentioned. The precautions against fire as detailed in the *Arthaśāstra* [II,

xxxvi, 56, and IV, ii, 78], where ten different remedies are laid down [दसमुक्तीर्पण] for universal use of householders, as also the municipal regulations by virtue of which, in all the principal roads of a city and in front of royal buildings, vessels filled with water were kept; which forbade building straw houses in the city, and confined those who worked with fire, e.g. blacksmiths, to isolated parts of the city: all these have really a reference to the wooden architecture prevalent in the period as indicated in the chapter on दुर्गिवधान [Bk. II] and also mentioned by Megasthenes [Frag. xxvi].

Lastly, the testimony of Megasthenes to the high degree of development which material civilization attained in India is abundantly supported by the detailed information furnished by the *Arthashastra* on the subject. It would take too much space, and is hardly necessary, to prove by quotations the truth of Megasthenes' remarks [Frag. i] that the Indians are "well skilled in the arts," and "while the soil bears on its surface all kinds of fruits which are known to cultivation, it has also underground numerous veins of all sorts of

gulations appropriate to a mercantile civilization, which are not parts of any system of polity, while both Aristotle's *Politics* and Plato's *Republic* go to the other extreme of treating only of the theory of the State and Constitution. In the *Arthashastra* we find a combination of theory and practice, principles of government, as well as administrative details and regulations, treated with a touch of refreshing realism which is born only of a living experience of actual problems and contact with facts. The system of polity as revealed in the *Arthashastra* is complete in all aspects and details, and exhibits those features which are characteristic of India. Agriculture and commerce, arts and crafts for which India is ever noted, receive their due treatment and emphasis in the book; forests and mines, irrigation and famine, land revenue, census, central and municipal government, cattle and livestock, are the eternal topics of Indian administration, conditioned, as every government is, by its natural and historical environment. And when we find that all these familiar problems have been treated in the *Arthashastra*—problems which are still exercising the British

Government of India at the present day—we cannot but discover the operation of an evolutionary process which is ultimately governing the development of Indian administration through Hindu, Mahomedan and modern times.

RADHAKUMUD MOOKERJI.



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STUDIES IN ANCIENT HINDU POLITY.

CHAPTER I.

PRELIMINARY. MINING. IRRIGATION. METEOROLOGY.

§ 1: *Preliminary.*—The *Arthashastra* of Kautilya, which has been recently edited and published by Mr. R. Shama Sastri, possesses a great interest and importance not only to students of Sanskrit literature, but also to students of Indian history. It throws a flood of light on the material, social and political condition of the ancient Hindus during the third and fourth centuries before the Christian era. It is in fact a unique record of the secular aspects or developments of Indian civilization in that brilliant period of Indian history—the Age of Chandra Gupta. For information regarding this period or the sources of its history,

we had hitherto unfortunately to depend mainly upon the meagre accounts left by Greek writers whose interest in India was first roused by the invasion of Alexander. This work of Kautilya, however, removes to a great extent our want in this direction by opening up a mine of information which is as full as it is reliable.

I therefore propose to utilize this work, in a number of chapters, as a source of information regarding the aforesaid period.

One of the most striking features of Chandra Gupta's government revealed by the *Arthashastra* is that it achieved many triumphs in peace which were no less than those of war—in fact, Chandra Gupta was as well known for the numerical strength and the efficiency of his army and the organization of his war office as for those regulations and institutions which ensure the material welfare of a country. In the present chapter I shall refer to some of the most prominent works and institutions of public utility of his time, which are definitely indicated by passages in the *Arthashastra*.

There can be little doubt that the department of public works in the government of Chandra Gupta was fairly well organized, with

its scope and functions clearly defined. The area of its activity was quite extensive, and included among other things the working of mines, the opening of irrigation works, the establishment of factories; the maintenance of preserves and grazing grounds, of highways of commerce, waterways, land-routes, and other facilities for communication; the establishment of markets and stores; the construction of embankments, dams and bridges; the planting of fruit and flower trees, of medicinal plants and herbs (*i.e.* the establishment of Ayurvedic and pharmaceutical gardens); and lastly, the State protection of the disabled, the helpless and the infirm, and also of the lower animals, thus anticipating some of the tendencies of modern legislation. I quote below some of the passages which contain references to these works and institutions:—

(i) वाकरक्षानाद्यहस्तिवनमनविक्षिपथप्रचारात् वार्त-
कसपथपश्चपतनानि च निवेश्येत् ।
—Bk. II, जनपदनिवेश, p. 47.

(ii) सेतुवन्ध्योरपाचार्योदकात् च होदकः चेषात् ।
—Bk. VII, कर्मसुभिः, p. 297.

(iii) एवं इष्यवनं सेतुवन्धमथाकरात्
रजेत् पूर्वेततात् राजा नवाचाभिप्रवर्त्तेत् ।
—Bk. II, जनपदनिवेश, p. 49.

(iv) उत्तरपश्चिमभागं पश्चमेष्टव्यगत्वं ।
—Bk. II, दुर्गनिवेशः, p. 55.

(v) चक्रोदकमाहार्यादिकम् वा सेतुं वन्धयेत् । अव्येषां वा
वप्तवां भूमिमार्गाद्योपकरणात् पर्वतं तुर्यात् ।
—Bk. II, उत्तरपदनिवेशः, p. 47.

(vi) इष्टग्रन्थर्क्षीयं महामार्चीयं, विभक्त्यजीपुरवस्त्राममवसारातः
दुगुप्रकक्षं वन्धनागारं कारयेत् ।
—Bk. II, उत्तिखादचेष्टकर्म, p. 58.

(vii) भिषग्मीष्टव्यागारात् आसादविश्वदमेष्टकं महीमा पाचक-
पीषकाभ्यासाकाना च प्रतिस्थाय राशे प्रयच्छेत् ।
—Bk. I, आद्वारचितकम्, p. 44.

(viii) गन्धमेष्टकोद्योरहोरहोरवैर पिण्डात्मकादीनां यदासं भूमिदु
च चाल्याद्य चनूपाद्योषधीक्षापयेत् ।
—Bk. II, सीताऽध्यज्ञः, p. 117.

(ix) सेतुं वनं ब्रजं विष्टकपथं चावेषेत् ।
—Bk. II, उत्ताहत्वसुद्यप्रक्षापनम्, p. 59.

(x) (a) वालहदव्याधितव्यसन्यनाथोच राजाविभूयात्
(b) सेन-वाल-विषपाहैः व्याधिभिश्च पात्तवान् (रचेत्) ।
—Bk. II, उत्तरपदनिवेशः, pp. 47, 48.

(xi) चयः प्राचीना राजमार्गाद्य उदीचीनाः ।
चतुर्द्युक्तरा रथ्या राजमार्ग-प्रोष्ठसुख-सानीय-राङ्ग-
विषीतपथाः ।
सप्तोनीय-चुरुमाधान-पास-पथात्म-रथाः ।
चतुर्द्युपस्तेतुवनपथः ।
द्विद्युषोऽक्षिलिचेनपथः ।
पद्मारलयो रथपथश्चलारः पश्चपथः ।
दीप्ति चुद्रपश्चमनुष्टपथः ।
—Bk. II, दुर्गनिवेशः, pp. 54, 55.

§ 2: *Mining*.—Let us first turn to the working of mines. The only two passages in Megasthenes that are worthy of note in this connexion are:—

"And while the soil bears on its surface all kinds of fruits which are known to cultivation, it has also underground numerous veins of all sorts of metals, for it contains much gold and silver, and copper and iron in no small quantity, and even tin and other metals which are employed in making articles of use and ornament as well as the implements and accoutrements of war."—Book I, Fragment i.

The second passage is:—

"The robes are worked in gold and ornamented with precious stones, and they wear also flowered garments made of the finest muslin."—Book II, Fragment xxvii.

These passages show, no doubt, that there were extensive mining operations in those days, but do not satisfy our curiosity as to their details. The *Arthaśāstra*, however, does this. According to it, there were two classes of mines, viz. (i) ocean mines and (ii) land mines, and expert superintendents were appointed in charge of each class. The duty of the superintendent of ocean mines was to look after the collection of diamonds and other precious stones, pearls, corals, conch-shells and salt. The regulation of the trade in these articles was also one of his duties. It may be

noted in passing that ocean mining unquestionably indicates great progress in the art of navigation and shipbuilding, which will be dealt with hereafter.

- ✓ A scientific expert was appointed to the post of superintendent of land mines. In the first place, he had to perform the difficult work of prospecting and discovering new mines on plains and mountain slopes. He had to examine and infer from slags, ashes and other such indications whether a mine had been exhausted or not. This department was manned by several other experts, as also by mining labourers. It was also equipped with the necessary scientific apparatus.
- ✓ The superintendent was guided in his work of prospecting by his knowledge of the signs and properties of the mineral ores. He had to pay particular attention to the depth of colour, weight, smell, taste, oiliness, adhesiveness, power of amalgamating with particular metals, and several other mechanical and chemical properties of the ores, in order to ascertain the nature and richness of a mine. We find in the Arthashastra the properties of several metals classified, and the large number and variety of

them necessarily lead one to the conclusion that mining reached a stage far above the rudimentary, and that the persons who devoted their attention to it possessed no small power of discrimination. As an illustration¹ I quote² below the passage which enumerates the signs of the different kinds of silver ores. It says that the silver ores are those which have the colours of शङ्ख, कर्पूर, स्फटिक, नवनीत, कपोत, पारावत, विमङ्क, मधूरपीवा; of सस्यक, गोमेदक, गुड़ मत्स्यचिका; of कोविदार, पद्म, पाटली, कलाय, छोमपुष्प, आतसीपुष्प; which are found in combination with सीस, अङ्गन, are विष (smelling of raw meat), भिन्न, चेताम, कृष्ण, कृष्णाम, चेत and लेखाविन्दुचित; do not split, and emit much foam and smoke. Similarly, we find mentioned the properties of the ores of gold, float-gold, bitumen, copper,³ lead,³ tin,

¹ शङ्ख-कर्पूर-स्फटिक-नवनीत-कपोत-पारावत-विमङ्क-
मधूरपीवावर्णाः। सस्यक-गोमेदक-गुड़-मत्स्यचिकावर्णाः। कोवि-
दार पद्मपाटलीकलाय छोमातसीपुष्पवर्णाः। सरीसाः साङ्गनाः
विषा भिन्नाः चेताभाः कृष्णाः कृष्णामाः चेताः चर्वे वा लेखाविन्दु-
चिता भूद्वो भाष्माना न सुटिनि वङ्गफेण्याथ इष्यवातवः।

—Bk. II, आकरकर्मानप्रदर्शनम्, p. 82.

² Ores of copper— भार्तिकसृजिग्धो मृदुष्व प्रस्तरधातुभूमि-
भागो वा पिङ्गलो चरितः पाटको छोहितो वा तापधातुः।
Ibid., p. 83.

³ Ores of lead— काकमेचकः कपोतरोचनावर्णः चेतराजिनहो
वा विषस्तीर्षधातुः। Ibid.

iron, etc. It is apparent from this that the classification is an elaborate one, and the industry in Chandra Gupta's time reached an advanced stage.

When the superintendent discovered a new mine, he intimated it to Government, stating at the same time the nature of its contents. The Government had to decide whether it would work the mine directly or lease it out to private persons. It was only in the case of those mines that required a large outlay to work them that Government leased them out.

The purification of the ores during the actual exploitation of the mines is an interesting study. The metals were purified by treating them with ingredients most of which were organic. The passage¹ quoted below enumerates these ingredients: तीक्ष्ण, urine, alkalies, राजदृश, वट, पोष्ट, cow's bile, urine and dung of buffalo, etc. Again, metals were made permanently or temporarily malleable

¹ तेचाम् (चातुर्नाम्) अद्यता मूढगर्भा वा तीक्ष्णमूच्चारभा-
विता राजदृशवटपोष्टपोष्टपित्तरोचना भृदिष्ट-चरकरटमूच्च-काष्ठ-
पित्तवदाक्षत्-प्रतीवापापापावलेपा वा विषवापुच्चवलि ।

by chemically treating them with several ingredients, *e.g.* ashes of यज्ञ, माष, तिळ, honey, sheep's milk, clarified butter, powder of cow's teeth and horn.¹ The passage bearing on this point asserts that even if a metal splits into a hundred thousand parts it can be rendered inallable by the prescribed methods. These methods, however, appear to us to be novel, and are quite different from what a metallurgist of the present day would use. But nevertheless they were of service in their day.

After the metals had been purified, the superintendents who looked after the manufacture of articles from the metals took charge of them. There were several such superintendents, *e.g.* a superintendent of gold (सूर्याध्यक्षः) for manufacturing ornaments from gold; a superintendent of the inferior metals (जोत्ताध्यक्षः), viz. copper, lead, tin, bell-metal, नाल and चोप्र, to manufacture commodities from them; a superintendent of the armoury (आयुधाध्यक्षः), one of whose duties was to look after the

¹ यज्ञमाषतिळपत्ताद्यपोत्तुचारैः गोचीरराजचीर्त्वैः कदलीव-
चकम्ब्रप्रतीवापो मार्दवकरः । भृत्युपद्युक्तमजापयःसमैलं धृतगुड-
किल्लयुतं सकम्बड्डीकं—यदपि भृत्युपद्युक्तमजापयः विभिन्नं भवति मृदु
विभिरेव तद्विदेकैः । गोदमाष्टङ्गप्रतीवापो मृदुलाभमः ।

—*Ibid.*, pp. 82, 88.



manufacture of metal weapons ; a superintendent of the mint (कल्पाधिकः) for minting coins from gold, silver, copper, etc. ; a superintendent of the treasury (कोशाधिकः), one of whose principal duties was to look after the formation of ornaments of precious stones such as necklaces and bracelets. Commerce in the manufactured metal articles was in the hands of Government. There was a separate superintendent to look after and regulate commerce in salt (सलवाधिकः).

There were regulations for the departments of the superintendents ; but leaving them for the present, let us turn to the different kinds of rates that were levied from mines.¹ These were, as the passage quoted below shows—

(1) मूल, (2) विभाग, (3) बाजी, (4) परिष, (5) अलय,

(6) घुर्ल, (7) वैधरण, (8) दण, (9) रूप and (10) रूपिक.

Before leaving the subject of mines, it should be noted that in Bk. IV, बाक्षकसोमुयोगः, there is a passage which lays down the punishment for a Brahman who has committed a heinous offence, viz., that though he must not be tortured in any case, his property may be

¹ एवं मूलं विभागं च बाजीं परिषमतयम्

घुर्लं वैधरणं दणं रूपं रूपिकमेव च । *Ibid.*, p. 85.

confiscated or he may be *condemned to the mines*.¹ This resembles the punishment inflicted in Rome on criminals for an offence of the grosser sort.

§ 3: *Irrigation*.—We now turn to the next point, viz. irrigation. That there was an elaborate system of irrigation in the time of Chandra Gupta is already known to us through Megasthenes:

"The greater part of the soil is under irrigation, and consequently bears two crops in the course of a year."—Bk. I, Fragment i.

And again,

"Some superintend the rivers, measure the land as is done in Egypt, and inspect the sluices by which water is let out from the main canals into other branches, so that everyone may have an equal supply of it."—Bk. III, Fragment xxxiv.

These statements are borne out by the Arthashastra, and, moreover, certain details are added which we do not find in Megasthenes. In the passages

सहप्रावर्त्तिमसुदभागं परम दद्यः ।

सहप्रावर्त्तिमं च तुर्थम् ।

सोतयन्तप्रावर्त्तिमं च वतीयम् ।

तुर्थं नदीसरक्षटाकृपोऽप्तम् ।

—Bk. II, चीताःपृष्ठः, p. 117.

¹ (वाह्यं पापकर्माणम्) कुर्यान्निर्विषयं राजा वास्येदाकरेत् वा । Bk. IV, p. 220.

we see that water-rates (जडकमाल) varied according to the modes of irrigation, which were four in number, viz. irrigation by hand (हस्तप्रावर्जित), irrigation by water carried on shoulders (स्थनप्रावर्जित), irrigation by some mechanical contrivance (जोतयन्त्रप्रावर्जित), and irrigation by water raised from tanks and rivers (नदीस्तरस्ताकक्षपोषाद्य). The rates were one-fifth, one-fourth, one-third and one-fourth of the produce respectively. Again, in Bk. III, वास्तुविक्रियः, p. 170, which speaks of remission of taxes in the case of repair of old tanks and construction of new ones, and also in the case of improvement and extension of waterworks, we find it laid down—वातप्रवर्जितमन्दिनिदम्भायतन-तटाककेशारारामपण्डवापानां सस्पर्षेभागोत्तरिकमन्येभ्यो वा यदो-पकारं दद्यः । which shows that there were not only means of raising water by bullocks, but also contrivances worked by wind power, i.e. wind-mills. In the next passage—

से तु भ्यो मुख्तस्त्रीयमपारे च दृष्टयो दमः
पारे वा तोयमन्येभां प्रमादेनोपदमतः ।

a fine of six paṇas is laid down for letting out the water of canals otherwise than through the sluice-gate (चपारे) and for hindering the flow of water through the same (पारे). This passage

confirms the existence of sluice-gates referred to by Megasthenes.

In the above couplet the word चेतुभः cannot be taken as the technical term for canals; for the term is a general one and has been used in several senses in the *Arthashastra*, e.g. bridges, watercourses, embankments.¹ But in Book II,² चीताभ्यः, we meet with the word कुस्तावापानां,³ which means countries where water is drawn from कुस्ता. This term कुस्ता means an artificial watercourse, and was perhaps the technical name for canals.

Special care was taken for keeping tanks and other waterworks in good repair, and the minimum fine in the case of those who were prone to neglecting them, viz. the owners of rent-free lands, was fixed at double the loss caused by their remissness.⁴ There were other regulations, e.g. one prohibiting men from emptying a tank of its water and from allowing the water of a higher tank to flow

¹ Bk. III, p. 166; Bk. II, pp. 47 and 60; Bk. VII, pp. 297 and 305.

² Also Bk. II, pp. 54 and 122.

³ (चस्तितम् वर्षप्रसादम्) द्विमन्यानां च कुस्तावापानां च । p. 116.

⁴ चप्रतीकारे द्वीपद्विगुणो दद्धः, p. 170.

into a lower one unless the latter had been useless for three consecutive years.

§ 4: *Meteorology*.—I cannot conclude this account of irrigation without pointing out that in those remote days the people had a workable knowledge of the science of meteorology. They had some sort of *rain-gauge* which enabled them to measure the rainfall in a particular tract of country in a given time.¹

(i) षोडशद्वयं जाइस्तानां वर्षप्रमाणम् सध्यधानूपानां देशवा-
पानामध्यवयोदशाभ्यकानां चयोर्द्विशतिरवतीभासमित्तमपराज्ञानां
देशवानां च कुस्त्यावापानां च कालतः ।

(ii) वर्षविभागः पूर्वपविमासयोः, द्विविभागीमध्यमयोः चृष्टमा-
क्षपम् ।

(iii) तस्योपज्ञभिर्दृश्यते सूक्ष्मानगमनमधीधानेभ्यः शुक्रोद-
यास्तमयचारेभ्यः स्त्र्यस्य प्रकृतिवैष्टताव । स्त्र्याद्वैजितिः ।
दृश्यते सूक्ष्माना खम्बकरिता । शुक्राद्वृष्टिरिति ।

(iv) वर्षस्ताद्विकामेषा अद्वीतिः कष्टमीकरा-
पद्विरातपमेषानां रथा वृद्धिस्तमाद्विता ।²

The lines quoted above show that they arrived

1 कोठागारे वर्षमानमरलिमुखं कुञ्जं स्थापयेत्—Bk. II, चत्वि-
शत्त्वयकर्म, p. 59. A vessel with its mouth 1 aratni wide was
used as a *rain-gauge*, and one such vessel was put before the
store-house. (1 aratni=24 angulas=about 2 ft.; an angula=
the middle joint of the middle finger of a middle-sized man)—
सध्यस्य उद्यव्य सध्यमाया षष्ठुक्षा सध्यप्रकर्त्तव्यस्तम्—Bk. II,
देशकालमानम्, p. 106.

2 Vide सीताभ्युषः, pp. 115, 116.

at definite conclusions as to the quantity of rainfall in particular places. In Jaṅgalav (जङ्गल) countries the rainfall is 16 dronas (a drona being a cubic measure); in the country of the Aśmakas (अश्मक), $13\frac{1}{2}$ dronas; in Avantī (अवन्ती), 23 dronas, and so on [passage (i)]. Besides, the rainfall is considered to be even, if it occurs during the commencing and closing months, *i.e.* Srāvanya and Kārtika, and two-thirds in the middle months, *i.e.* Bhādra and Aśvin [passage (ii)]. The third passage speaks of the forecast of rainfall that can be made by observing the position, motion, etc., of the sun and Venus and Jupiter; the germination of seeds can be inferred from them also. The last passage indicates an elaborate classification of the clouds according to their characteristics. It speaks of three kinds of such clouds as poured in heavy showers for seven days together, eighty kinds of clouds that rained minute drops, and sixty kinds that appeared with sunshine. All this shows that the science of meteorology was brought to such a developed stage that the people could depend on its conclusions and guide their actions in their day-to-day work of sowing seeds and reaping harvest.*

CHAPTER II.

THE DEPARTMENT OF LIVE STOCK:
CATTLE AND PASTURE.

WE have in the previous chapter dealt with some of the public works of utility as described in the *Arthashastra*. We have seen how a special department existed for the development of mining, the impetus to the discovery of mines being given in the shape of a share in the mines discovered;¹ and how the department was placed under the charge of experts conversant with all the processes of that difficult industry. We have also seen how the promotion of irrigation was looked upon as one of the duties of the State and was not left to

¹ If a private person discovered a mine, he got one-sixth of it as his share; if he happened to be a Government servant, one-twelfth: उनिरलनिविनिवेदमेषु षष्ठमंशनिवेता षष्ठमेता । इष्टमंशं भूतकः । इत्तम्भवाद्युर्ज्ञ राजगाली निधिः । उनेषष्ठमंशं दद्यात्—Bk. IV, कार्यकरचयम्, p. 202.

the meagre resources of private enterprise. In connexion with irrigation, we have also seen how the necessity of meteorological observations was recognized, and even simple contrivances were in use for purposes of rain-gauge (वर्षमानम् कुण्डम्).

We shall now turn to other institutions of public utility maintained by the State. It is a noteworthy fact that the importance of live stock to India, pre-eminently the country of agriculture, was then fully realized, and special care was taken by the Government for their healthy growth and improvement. Even at the present day Indian agriculture has been held to be suffering much from want of proper grazing grounds and commons for cattle and of a proper supply of fodder;¹ but in Chandra Gupta's time we find a special department to provide for pastures and grazing grounds for a proper supply of fodder and for the welfare of live stock in general. There were no less

¹ Compare in this connexion the following extracts from the article on agriculture in the *Imperial Gazetteer* (new edition): "In the deltaic areas and in the rice-tracts generally, the cattle are miserably weak. Grazing lands are here limited or totally wanting . . . General improvement is hopeless without assured fodder supplies . . ."—Vol. iii, pp. 77, 78.

than six chief officers for running this department: (i) गोप्यक, the superintendent of cows; (ii) विदीताध्यक्ष, the superintendent of pastures and grazing grounds; (iii) छनाध्यक्ष, the game-keeper; (iv) वर्षाध्यक्ष, the superintendent of elephants; (v) ज़ुप्याध्यक्ष, the superintendent of forests and forest produce; and (vi) असाध्यक्ष, the superintendent of horses.

Let us first turn to the first of these officers. It must not be supposed that the superintendent of cows, as the name indicates, had to take care of cows alone. In fact, he had to do with other animals also, such as buffaloes, sheep, goats, asses, camels, pigs, mules and dogs. One of his chief duties was to appoint milkers (दोहक), churners (मन्यक) and hunters (लूबक) for fixed wages, to each of whom was assigned a herd of 100 heads.¹ He had also to see that the bulls were tamed and trained to the yoke by the cowherds (गोपालक), and that strings were put through their noses,² as also

¹ गोपालक-पिण्डारक (buffalo-herdsman)—दोहक-मन्यकलुब्बकाः इतं इतं धेननां द्विरक्षमुत्ताः पालयेयुः । चौरमृतमृता द्वि-यत्कानुपद्युर्तिर्ति देवनगोपप्राहिकम्—Bk. II, गोप्यकः, p. 128.

² दोहकालमतिक्रामतस्तक्षलवान् इतः । एतेज नस्यदम्य-युग्मित्वर्त्तनकाला वाल्याताः—*Ibid.*, p. 130.

to settle terms with herdsmen for the tending of animals under their charge. These terms were of four kinds :—

(i) Appointing, on fixed wages, cowherds and buffalo-herdsman, each of whom was placed in charge of 100 head. This arrangement was called वेसनप्रतिपादिक.¹

(ii) Appointing, on payment of a certain fee, cowherds, each of whom was placed in charge of a herd of 100 head, containing in equal numbers the following five classes of cattle, viz. aged cows (वरद्दगु), milch cows (धेनु), pregnant cows (गर्भिणी), young cows (पढीरी), and female calves (वस्तरी). The fee was 8 वारकास (i.e. $3\frac{3}{20}$ seers) of ghee, as well as the tail and branded² skin of dead cows. This system was called करप्रतिकर.³

(iii) Appointing, on the principle of profit-sharing, cowherds whose herd comprised cattle

¹ *Vide* footnote (i) on previous page.

² There were special brands to distinguish private cattle from the royal. Tampering with the royal brands was punishable : परपश्चनां राजाक्षेन परिवर्त्यिता रूपस्य पूर्वं चारसदण्डं दद्यात् ॥ (गोधर्षः) ।

³ वरद्दगु-धेनु-गर्भिणी-पढीरी-वस्तरीरां समविभागं रूप-इतमेकः पालयेत् । धृतस्थायी वारकान् पणिकं उच्चं चक्षुचर्मं वार्दिकं दद्यादिति करप्रतिकरः ।—*Ibid.*

with diseased limbs (वाधितान्यज्ञान), those which could not be milked or were difficult to milk (चोहुर्दुर्दैर्याः), and those that killed their calves (उत्तन्नी). Each herd was composed of the above four classes in equal numbers. As the tending of these herds was difficult, it was rewarded by a share in the out-turn from the herds. This arrangement was known as भगोत्तद्दृक्.¹

(iv) Engagement of the services of the superintendent by private parties for tending their herds in the event of their own inability to do so, either from danger of thieves, or from apprehended danger from forests. In these cases, the fee charged by the Government was a tenth of the produce. This system was termed भागानुप्रविष्टक.²

One other particular regarding these herds should be noted in passing. The total number of each herd was fixed at 100, but the number of male animals in each herd varied with its

¹ वाधितान्यज्ञानचोहुर्दैर्यापुत्तन्नीतां च समविभागं क्षम-
मतम् पालयनक्षम्यातिक् भागं दद्युरिति भगोत्तद्दृक्।

—*Ibid.*

² परचक्षाट्यी भगानुप्रविष्टावां पद्मनां पालयन्तर्भेष्य इम-
भागं दद्युरिति भागानुप्रविष्टकम्।—*Ibid.*

composition. A herd of 100 head of asses and mules was to contain five male animals; that of goats and sheep, ten; while that of cows, buffaloes or camels, four.¹

There was a *register of cattle*, kept by the superintendent. In it were noted the following varieties of cattle, viz.—male calves (वत्सः), steer (वस्त्राः), tamable draught oxen (इम्यावच्छिन्ने दृष्टः), bulls for impregnating the herd (उच्चरः उक्तवाः), oxen for pulling carts drawn by pairs (युग्मवाहनश्चकटवह्नः दृष्टभाः), cattle of which the flesh was food (चूनाः), buffaloes (महिषाः), draught buffaloes (उष्ट्रस्त्रम्भवाच्छिन्नः महिषाः), female calves (वत्सिकाः), heifers (वत्सतरी), young cows (पष्ठौरी), pregnant cows (गर्भिणी), milch cows (धेनु), cows and buffaloes that had not yet calved (प्रजाताः) or were barren (वन्ध्याः), male and female calves only a month or two old or still younger (मासद्विमासजातासाधासुपज्ञा वत्सा वत्सिकाः).² These, together with the cattle that strayed away and were not claimed for a month or two by the owner who lost them (मासद्विमास पञ्चिताः), were branded, and the superintendent registered each of them

¹ पश्चर्षभं खराचानामजावीर्ना दग्धर्षभम्
शक्तं गोमहिषीद्वाष्टी यूधं कुर्वाचतुर्वृद्धम्।—*Ibid.*

² *Vide* “मोध्यचः”।

according to its class as mentioned above, and also according to the brand, natural signs, colour, and distance between the horns. This duty of the superintendent was termed व्रजपर्यप्तम्.¹

The superintendent had also to take note of those animals that were missing (मर) and also of those that were lost for good (विनष्ट). Those that were stolen, had got mixed up in the herds of others, or had disappeared in other ways, were called मर. Animals were regarded as विनष्ट when they met with either natural or violent death. Thus, it was recorded whether they died of poison, disease, old age, from being buried in mire or drowned in water; whether killed by tree or stone falling upon them, struck by lightning (रेशम), or fallen a prey to tiger, snake, crocodile or forest fire.²

The State fixed the scale and standard of diet normally necessary to keep up the health, vigour and working capacity of all live stock.

¹ व्रजं चित्रं वर्णं गद्धान्तरं च जच्छमेष्वसुपजानिवभ्यं दिति व्रजपर्यप्तम्।—*Ibid.*

² चोरहृष्टमन्यथयत्रिविहसवक्षीनं वा भद्रम् पश्च-विषम-यात्रिः अरा तोयाधारावसंक्षं दृश्यतटकाहशिलाभिहितमीशानव्याहृष्टपात्र दावाप्रिविपत्तं विनष्टं प्रसादादभ्यामवेयः—*Ibid.*

The following table gives particulars about the dietary of bulls that were provided with nose-strings and equalled horses in speed and carrying loads.¹

For the aforesaid bulls :—

Quantities.	Approximate modern equivalents.
½ bhāra of meadow-grass (यवस)	1½ seer.
1½ bhāra of straw (खण्ड)	3 seers.
1 tulū of oil-cakes, with cheese* if necessary to make them more palatable	2½ chataks.
10 Adhakas of bran (करकुच्छ)	12 chataks.
5 palas of salt (मुख्लवण)	2½ sikkis (about ½ kancha).
1 prsṭha of drink (पान)	1½ kancha.
1 tulū of मांस, i.e. fleshy part or pulp of fruits . . .	2½ chataks.
1 drōṇa of barley (यव) or of cooked bean (माप) .	4½ chataks.
1 Adhaka of curd (दधि)	1½ chatak.
1 drōṇa of milk (चीर)	4½ chataks.
½ Adhaka of liquor (सुरा)	2½ kanchas.
1 prasṭha of oil or gheo (सैङ्घ)	1½ kancha.
10 palas of molasses (चाट)	4½ sikkis.
1 pala of ginger (धूङ्घिवेर) may be substituted for drink (पान)	1½ or about ½ siki.
1 kuḍumba of oil for rubbing over the nose (सैचकु- डुम्बीनस्त्र)	1½ siki. ²

¹ वस्त्रीवर्द्धनां नस्याच्चमदगतिमाच्चिनां यवस्यार्थमारः, etc.—गोप्यचः ।

² किसाटो—(cheese)—धाणपिण्डाक—(oil-cakes)—सैदार्थ—*Ibid.*

³ The above measurements have been made on the basis of गुञ्ज (gunja) seed or two माप's (mashas) being taken as the unit of calculation, equivalent to 1½ grains (Troy). See the chapter

The same quantities of the above commodities less by one-quarter formed the food of mules, cows and asses; and twice the above quantities were given to buffaloes and camels. The quantities fixed above, however, could be varied to suit the needs of particular occasions. For example, the rations allowed to oxen kept to work were proportioned to the length of time they were worked, and in the case of cows that were milked, an increase was made in the amount of food.¹ The main items of food were of course water and straw, which were always given in plenty to all cattle,² while whey (जटचित्) was given to pigs and dogs.³

There were various rules regarding the milking of cattle and the standard of dairy produce of all kinds. The milkers had to milk

entitled तुक्तामानपीतवस्तु (Bk. II), which describes the weights and measures then in vogue. The measurements given therein coincide in the main with those arrived at independently from other Sanskrit works by Monier Williams in his famous Dictionary.

¹ पादोनमन्तरगोष्ठराष्ट्राणां, द्विगुणं सर्विद्वाषाणां कर्मकरवस्तीवदानां, पायनाधीमां च धेनुनां, कर्मकाक्षतः पक्षसष्टि विधादामस् ।

² सर्वेषां दृष्टीदृष्टप्रकाम्यमिति गोमधुरं वाण्णामस् ।

³ उद्दीप्त् च वराहेभ्यो इत्युः ।

the cattle once or twice a day according to the seasons. Thus, in the rainy and autumnal seasons and in the first part of winter (हेमन्त), they had to milk both in the morning and in the evening, while in the other seasons, only once in the day ; and if anyone violated this rule and milked a second time, he was visited with the cruel penalty of having his thumb cut off. They had to milk at stated hours and make good any loss caused by neglect of this rule.¹

The churners had generally to conform to certain fixed proportions in regard to the preparations of milk. Thus, it was fixed that 1 prastha, *i.e.* $1\frac{1}{3}$ kancha, of ghee would be produced from 1 drona, *i.e.* $4\frac{1}{3}$ chataks, of cow's milk, one-fifth as much more from the same quantity of buffalo milk, and one-half as much more from the same quantity of milk of a goat or sheep. Where any variation of the above proportions occurred, as it must occur through a change in the quantity and quality of the food given to cattle, the exact quantity of ghee was ascertained by actual churning,

¹ वर्षीयरहेमनानुभयतः कालं दद्यः । ग्रिग्निरवस्त्रयीयानेक-
कालम् । हितीयकालदोग्धुरहुष्टदो दद्यः ।—दोहकालमति-
क्रामतस्तद्वक्षहाम दद्यः ।—(गोध्यतः) ।

and was fixed as the modified standard to which churners had to conform.¹

Besides the rules relating to the yield of living cattle, there were also rules regarding that of the dead. In case of the natural death of a cow or a buffalo, the herdsmen had to surrender the skin with the branded mark. The same rule applied to the cases of goat, sheep, ass, camel, etc. The herdsmen had also to give up the fat, bile, marrow, teeth, hoofs, horns and bones of the dead animals.²

Again, animals like goats and sheep were shorn every six months, and their wool (जर्णा) was made over to the superintendent.³

MEDICAL TREATMENT OF CATTLE.

It was also the duty of herdsmen to apply medicines to diseased animals. The due dis-

¹ चीरद्वये गवां धूतप्रस्थः । पच्चभागाधिको महिषाणा । द्विभागाधिकोऽकादीनां । सन्यो वा सर्वेषां प्रमाणं भूमिष्ठेऽदकविशेषादि चीरधूतद्विभवति ।—(गोप्यदः) ।

² कारणमतस्याङ्गचर्मं गोमविषस्य कर्षकचर्षमजाविकानाम् पुच्छमङ्गचर्मं चाश्वरोऽद्वयां वालचर्मं-वस्त्र-पित्र-खायुदक्षाद्वुर्द्वास्थीनि चावरेणुः ।—Ibid.

³ चालादीनां वारमासिकोमूर्द्धा पात्रयेत् । तेनाश्वरोऽवराह-वजा आत्मातः ।—Ibid.

charge of this important duty was secured by a healthy rule providing that when, owing to defects in medicine or carelessness in the treatment, the disease of an animal became serious, a fine of twice the cost of the treatment should be imposed ; and when, owing to defects in the nature of the medicine itself, the animal died, a fine equal to the value of the animal was imposed.¹

Lastly, there were several humane regulations to prevent the cruel treatment of animals. There was a fine of 1 or 2 paṇas² by which causing pain with sticks, etc., to minor quadrupeds was punished. This fine was doubled when the beating caused the animal to bleed. In the case of larger quadrupeds the above rates were doubled, and, in addition, an adequate compensation was demanded to cover the expense of curing the beasts.³

¹ वास्तविकाधितानां गोपालकाः प्रतिकृद्यः ।—*Ibid.*

क्रिया भेषज्यहेन आधिवृद्धी प्रतीकारदिग्गुणो दण्डः । तदव-
रोधेन वैस्त्रेये पञ्चम्यं दण्डः । सेन गोपालसं चरोऽमच्चिद्यमजाविकं
च व्याख्यातम् ।—Bk. II, अन्वाध्यक्षः, p. 185.

² A paṇa is a weight of copper used as a coin = 20 māshas =
4 kālakīnas.—Monier Williams.

³ चुदपश्चानां काहादिभिर्द्युग्योपादने पश्चो द्विपश्चो वा दण्डः ।
शोषितोत्पादेन द्विगुणः । अचापश्चानामेतेच्चव्यानेषु द्विगुणो
दण्डः, समुत्तानव्ययम् ।—Bk. III, दण्डपादप्रथम्, p. 197.

We find it laid down that cattle such as a calf, bull or milch eow must not be slaughtered. A fine was imposed on those who slaughtered or tortured the animals to death.¹

We have seen already how the diet of cattle was regulated. We shall now see what arrangement was made for grazing them on pastures. For opening, preserving and improving the grazing grounds, a separate superintendent, ealled चिवीताध्यक्ष, was appointed. He had to observe varions rules regarding the working of his department. We find it distinctly laid down that the same forest could not be used as pasture for the eattle of neighbouring villages and towns throughout the whole year. Particular forests were assigned to particular seasons (सूत्रविभक्तमरणम्). Thus a system of rotation was introduced by whieh the pastures were kept up uninpaired, with their resources unexhausted by eontinuous use.² Pastures were generally opened

¹ वत्सो दधो धेनुर्देवामवधाः । यातः पस्तामृत्को दधः ।
स्त्रिष्ठवातं यातयतय ।—Bk. II, छनाध्यक्षः, p. 122.

² सूत्रविभक्तमरणम् लेनवाजपरवाधमयम् सूत्रविभक्तमरणम्
चारयेयुः—Bk. II, गोध्यक्षः ।

in forests, in uncultivated tracts, and in intermediate areas between places infested by wild animals, thus promoting at the same time the reclamation of waste lands.¹ There were thus several pastures in a locality, and it was the business of the herdsman to see which of them would suit the cattle under his charge. He was naturally guided by two considerations, viz. the physical strength of his cattle and the degree of protection from danger available either from persons or from the security of the place.²

As to the kinds of animals that were allowed admission into the grazing grounds, we have information from two passages,³ the first of which mentions cows, buffaloes, goats, sheep, asses, camels, horses, and mules; the second, which appears in a different context, referring

¹ अलशायां भूमौ पश्चुभ्यो विवीतानि प्रयच्छेत् । (Bk. II, भूमि-च्छिद्विभागम्, p. 49); भयाक्षरेषु च विवीतं खापयेत् । (Bk. II, विवीताध्यः, p. 141); and अतुविभक्तमरणम् चारयेषुः (*supra*).

² उपमिवेश्विभिर्मागे गोप्रचारान् वसान्वपते वा गदा रचा-सामर्थ्याच ।—Bk. II, गोध्यः ।

³ (i) गोमहिषमजाविकं खरोद्भस्तराच व्रजः—Bk. II, चसा-चतुर्भुद्यप्रकापनम्, p. 60.

(ii) नवाचरथोद्धानां च व्रजः—Bk. VII, हीनमहिष्पूरणम्, p. 805.

to cows, horses and camels as being the animals that flourish on pastures and are the source of power to the king.

The safety of the cattle was one of the chief concerns of the superintendent of pastures. It was ensured by the appointment of hunters, who maintained a pack of hounds to aid them in their work of watching thieves and enemies and warding off danger from snakes, tigers, etc.¹ The hunters had recourse to the following means of calling in the aid of the king and the king's men :—

(i) Blowing conch-shells and beating drums (श्रुत्तुभिरङ्गमः).

(ii) Remaining concealed amid trees and mountains, and afterwards sending the information (शैलदृश-विकङ्गः).

(iii) Riding away on swift horses, etc. (शीत्रवाहनाः).

(iv) Flying carrier pigeons belonging to the king's household, with royal passports attached to them (राज्ञः सुदायुक्तैः ग्रन्थकपोतैः).

¹ चोर-बालभयाद्विभारत्यानि गोधयेत् । सुभक्षमगदिनः पर्त-
व्रगेयुररथ्यानि—Bk. II, विवीताध्यक्षः, p. 141.

सुभक्षमगदिनभिरपात्र सेन-शालपरवाधमयम् तु विभक्तमरथ्यम्
चारयेत्—Bk. II, गोध्यक्षः (also quoted *supra*).

(v) Announcing danger by a succession of beacon fires (धूमादिपरम्परया).¹

Besides these general precautions that had to be adopted by the superintendent of pastures, the duty of taking special protective measures was thrown on the herdsmen themselves. They had to attach bells or other sounding instruments to the necks of timid animals. These served the double purpose of scaring away snakes and other undesirables and of helping the herdsmen to easily find out, by following the direction of the sound, the animals that went astray.² When the cattle required watering and bathing, their safety was secured by leading them only to those streams and ponds which were marked out as being free from mire (चकर्दम) and crocodiles (चक्राव), and the approaches to which were gradually sloped instead of being abrupt and steep (समचूडमीर्य).³

¹ तत्करामित्राभ्यागमे श्वान्दुन्दुभिश्वसप्राण्याः कुर्यात् । शैक्षण्य-विक्रिडा वा, शीघ्रवाहना वा, अमित्राडवीषसारं च राज्ञोग्नेत्वक-पोतैसुद्रायुक्तैर्हारयेत्; धूमादिपरम्परया वा ।—Bk. II, विवी-ताध्यच; p. 141.

² सर्पव्याघ्राचासनार्थं गोचरानुपातज्ञामार्थं च चक्रनां घण्टामूर्त्यं च दग्धीयुः ।—Bk. II, गोध्यचः ।

³ समचूडतीर्थमकर्दमपावसुदकमवसारयेत्; पात्रयेयुष—*Ibid.*

Another direction for the guidance of the herdsmen was that they should divide the cattle, while grazing, into groups of ten according to colour, the object being to avoid confusion between herds and to facilitate the herdsman's work of singling out his herd after grazing.¹ The cowherds were strictly prohibited from allowing the bulls under their charge to fight in the grazing grounds, and were fined for violating the rule.²

There were also a few rules applying to losses of cattle by theft or otherwisc. If any animal were stolen, or killed by snakes, etc., or died through old age or disease, the herdsmen had to report it forthwith to the superintendent of cows; otherwise, they had to pay as penalty the price (रूपमूल) of the animal lost.³ If an animal belonging to the flocks under गोप्यकाल: were killed or stolen, the crime was visited with capital punishment; but if it were

¹ दर्शावरोधेन दग्धवर्गाणां रक्षणं करणीयम् ।—*Ibid.*

² धयाद्यं चृष्टेणावपातयतः पूर्वः साहस्रदण्डः धातयतः उत्तमः । (पूर्वसाहस्रदण्ड—a fine ranging from 48 to 96 panas)—गोप्यकालः ।

³ स्त्रेनवास्त्रसर्प-पाह-गृहीतं वासिनिरावस्त्रं च आवेदयेयु-रन्धा रूपमूलं भजोरम् ।—*Ibid.*

replaced by another, only a fine was inflicted. Rewards were also given to those who recovered the stolen cattle from thieves.¹

¹ स्वयं इन्हा वातव्यिता इतां दारव्यिता च वधः । परपश्चान्नां
राजाङ्गेन परिवर्त्यिता कृपस्य एकेकाम्प पूर्वं साप्तसदण्डं दद्यात् ।
सदेश्वीयानां चोरहृतं प्रत्यानीय पवित्रं कृपं चरेत् । परदेश्वी-
यानां मोक्षवितार्थं चरेत्—*Ibid.*

CHAPTER III.

THE DEPARTMENT OF LIVE STOCK (*continued*):
♦ GAME, FORESTS AND HORSES.

IN the last chapter have been described the functions of two of the six chief officers who were to perform special duties in connexion with live stock, viz. the superintendent of cows and the superintendent of pastures. The present chapter will detail the functions of three of the remaining officers, viz. the gamekeeper, the superintendent of forests, and the superintendent of horses.

THE GAMEKEEPER.

The Government of Chandra Gupta addressed itself in various ways to the protection of lower animals. There were issued specific regulations affording State protection to certain classes of animals, and for this purpose were

also established and maintained forests (भूमियवन), the animals whereof were exempted from capture, molestation and slaughter. Into these forests none could enter, and the violation of this rule was visited with fines.¹ For the enforcement of these regulations a special superintendent was appointed called रुमाधच (gamekeeper).

The following were the classes of animals that were given protection :—

(i) Birds, deer and other animals living in the forests under State protection, as well as fishes in the ponds therein.²

(ii) Those birds, fishes, deer and other animals that do not prey upon life.³

(iii) Calves, bulls and milch cows.⁴

(iv) Ocean animals resembling elephant,

¹ प्रदिव्वाभयानामभयवनवासिनां च मृग-पश्च-पश्चि-मत्स्यानां वभवधिंसायामुत्तरं दण्डं कारयेत् । कुटुम्बिनां भभयवनपरिपदेषु मध्यमं ।—Bk. II, रुमाधचः, p. 122.

उत्तर दण्ड, a fine ranging from 500 to 1000 panas; मध्यम दण्ड, a fine ranging from 200 to 500 panas.—Bk. III, साहस्रम, p. 192.

² See the foregoing passage.

³ वप्रदिव्वाभयानां मत्स्यपश्चिष्ठां वभवधिंसायां पादोनसपत्निंशति (28) —पश्चमत्यं कुर्यात् । मृगपश्चनां द्विगुणं ।—(रुमाधचः) ।

⁴ वत्सो दधो चेनुदेवामवधाः । वातः पश्चामत्तको दण्डः । क्लिष्टधातं वातयत्तच ।—Ibid.

horse, man, ox or ass. This, by the way, points to a close familiarity with the ocean and marine life.¹

(v) Fishes in rivers, lakes and canals (कुस्ता).²

(vi) A few game-birds, specifically named as follows: सारस (crane) in rivers, lakes and canals, क्रौष (osprey), उत्त-क्रोषक (sea-eagle), दात्युर (gallinule, an aquatic bird), चंच (goose or gander, swan, flamingo, etc.), चक्रवाक् (Brahmany duck), जीवझीवक (a kind of pheasant), भृत्यराज (fork-tailed shrike), चकोर (partridge), मत्तकोकिल (cuckoo), मधूर (peacock), चक (parrot), मदनभारिका (*Turdus salica*—birds like mainâ).³

(vii) Those birds and beasts that were regarded as sacred.⁴

Moreover, tolls were levied upon the capture

¹ सामुद्र वस्त्रयन्त-पुरव-हृष-गर्भभाक्षतयः—सूत्राभ्यः।

² मत्तस्थाः नादेयास्ताक कुस्तोहवाः—*Ibid.*

³ सारसा नादेयास्ताक कुस्तोहवाः। क्रौष-उत्त-क्रोषक-दात्युर-हंस-चक्रवाक्-जीवझीवक-भृत्यराज-चकोर-मत्तकोकिल-मधूर-चक-मदन-भारिका विहार-पर्विणी माहस्यासान्वेषि प्राणिनः पर्विणी विचावाभेभ्यो रक्षाः। रक्षातिक्रमे पूर्वसावधारणः (a fine ranging from 48 to 96 pañcas).—*Ibid.*

⁴ माहस्यासान्वेषि प्राणिनः पर्विणी विचावाभेभ्यो रक्षाः—(Supra.) An interesting list of protected animals, some of which also appear in this list, is given in Asoka's Rock Edict V.

of those birds, beasts or fishes that preyed upon life and were thus the legitimate objects of capture. Of the live captured animals, the gamekeeper took a sixth, to be afterwards set at large in special forests under the State, and a tenth or more was appropriated by Government.¹

For the safety of the protected animals in the State forests, any animal growing vicious or in any way harmful to the rest was captured and killed outside the forests.²

HUNTING FORESTS.

Hunting down game animals in the hunting forests was allowed, and not only the king himself but also private individuals enjoyed the privilege. We learn from Asoka's Rock Edict VIII that it was a practice with the kings to go out on hunting excursions, which Asoka abolished in the eleventh year of his reign. Megasthenes also describes the

¹ प्रदृशहिंसानां परिशृङ्गीतानां वद्भागं गद्धीयात् । मत्स्य-पचिष्ठा दद्भागं वाधिकं मूङपश्चनां शूलं वाधिकं । पचिमूगाणां जीवसूखद्भागं अभयवनेषु प्रमुच्चेत् ।—(सूनाध्यक्षः) ।

² दुहाः पश्चस्तगव्याला मत्स्याद्याभयचारिणः
चन्यच गुप्तिस्थानेभ्यो वधवभसवाप्रयुः ।—*Ibid.*

grand scale on which the royal hunting was organized.¹

It seems from the extract of the Arthashastra quoted below that the king had a hunting forest exclusively for his own use. It was provided with only one entrance (एकद्वार) and had a canal running round it to ward off intrusion (चातुर्गुप्त). Inside were planted fruit-trees, thornless plants, creepers and shrubs (खादुफलगुप्तसकप्तकिद्वम्), and there was also a large tank (जगानतोयाशयं). There roamed at large not only the milder game animals (दान्तमृगचतुर्पद) but also some of the wilder ones, but deprived of their natural offending weapons like nails and teeth: viz. tigers, male, female and young elephants, and other game animals (भूषणवदंद्वयान-मार्गायुक-हस्ति-हस्तिनी-कल्पम-मृगवन्).²

Besides this imperial hunting forest, there were other hunting forests³—all under the

¹ Megasthenes, Bk. II, Fragment xxvii.

² तावन्नाचमेकद्वारं चातुर्गुप्तं खादुफलगुप्तसकप्तकिद्वम्-
मुग्नानतोयाशयं दान्तमृगचतुर्पदं भूषणवदंद्वयानमार्गायुक-हस्ति-
हस्तिनी-कल्पम-मृगवन् विचारार्थं राज्ञः कारयेत् ।—Bk. II, भूमि-
हित्रिविधानम्, p. 49.

³ उर्बातिथिमृगं प्रत्यन्ते चान्यन्मृगमनं भूमिविधेन वा विवेष्येत् ।
—Bk. II, भूमिहित्रिविधानम् ।

general superintendent (कुण्डाध्यक्ष), who had another duty to perform in connexion with live stock, viz. the capture, when needed, of birds and beasts under his care.¹

THE SUPERINTENDENT OF HORSES.

The superintendent of horses had manifold duties to perform, viz. : (1) to keep a register of horses; (2) to classify them according to breed, age, colour, marks, size, etc.; (3) to provide for their stabling; (4) to determine their rations; (5) to break and train them according to their mettle; (6) to provide for their medical treatment by veterinary surgeons; and (7) to arrange for the taking of proper care of them in other ways, as detailed below.

Registration and classification.

Horses were registered not only according to their natural qualities, but also in several artificial but convenient ways. Thus, horses were regarded as belonging to the three classes or types of तीक्ष्ण (fiery), भ्र (gentle) and मध्य

¹ एडार्ट्सभक्तानि मृगपशुपक्षिकालीवाटाः काष्ठदण्डवाटा-
सेति ।—Bk. II, कुण्डाध्यक्षः, p. 100.

(sluggish).¹ They were also classified according to the places of their origin. Among these have been mentioned the following places, some of which have been identified :—

- (1) काम्भोज (Kâmbhôja), (2) सिंधु (Sindhu), (3) आरह (Âraṭṭa), (4) बनायु (Banâyu), (5) बाल्हीक (Bâlhîka), (6) सौवीर (Sauvîra), (7) पापेय (Pâpeya), (8) तैतल (Taitala).²

¹ तेषां तीक्ष्णभद्रमन्दवशेन साक्षात्त्वमौपवाह्यकं वा कर्त्तुं प्रयो-
जयेत् ।—Bk. II, अकाध्यः, p. 183.

² प्रयोग्यानामुत्तमाः काम्भोजकस्मिभवारहजवानायुक्ताः । मध्यमा-
वाल्हीक-पापेयक-सौवीरक-तैतलाः । एवाः प्रत्यवराः ।—Ibid.

Identifications :—

- (1) काम्भोज—Afghanistan: Kaofu (Kambu) of Hiuen Tsang. (N. L. Doy's *Geographical Dictionary*.)
- (2) सिंधु—Sindh.
- (3) आरह—Punjab, land of the Arâshtrakas, i.e. the king-less. (Cunningham's *Geography of Ancient India*, p. 215.)
- (4) बनायु—Arabia. (वाचस्पत्यम् of T. N. Tarkavachaspati.)
- (5) बाल्हीक—Balkh in Central Asia. (Monier Williams.)
- (6) सौवीर—or Sophir of the Bible; according to Cunningham, the same as the modern Eder in Guzerat. (Geogr. of Anc. Ind., p. 497.)

It is interesting to note that almost all the places mentioned above appear in the following sloka of the Râmâyana :—

काम्भोजविषये जातेवाल्हीकेष चयोगमः:

बनायुकेषदीनेष पूर्णा चरि चयोगमः ।

—Bâlakânda, Sarga 6, sloka 22.

मदीजाः in the sloka = सिंधुनदी समीपोद्भवाः । (Râmânuja.)

Of these places the first four were held to supply the best breed of horses, and the remaining four, horses of the second quality. Horses of inferior quality came from other places. Thirdly, there was another method used to classify horses, viz. by the way in which horses were procured. According to this method, horses could be of the following descriptions:—

(1) पश्चागारिक (brought to the sale-house for sale); (2) क्रयोपागतम् (recently purchased); (3) आहवस्त्रम् (captured in war); (4) आजातम् (of local breed); (5) साहाय्यकागतम् (sent for help as loan); (6) वनस्कात् (wild and fresh from forest); (7) यावत्कालिकं (kept in the stable only for a while).¹

A method of testing horses.

The mettle of a horse was inferred from certain measurements of parts of its body as explained below:—

The face (मुख) of the best horse measures 82 angulas.

¹ अशाध्यः पश्चागारिकं क्रयोपागतमाहवस्त्रमाजात साहाय्यकागतं वनस्कात् यावत्कालिकं वाऽप्यपर्यं कुलवयोवर्णचिक्रवर्णगम्भेष्यत् ।—(अशाध्यः) ।

Its length (आयाम), five times its face = 160 angulas.

Its shank (जङ्गा), 20 angulas.

Its height (उत्तेज), four times its shank = 80 angulas.

A defect of 3 angulas must be allowed in the above measurements in respect of horses of the second quality, and of 6 angulas in respect of inferior qualities.

The girth (परिवाह) of the best horse is 100 angulas;

of horses of second quality, 95 angulas;

of horses of lowest quality, 90 angulas.¹

Stables.

The provision of suitable stables was one of the chief duties of the superintendent. This is also hinted at by Megasthenes.²

The size of each stable was of course determined by the number of horses to be kept therein. The length of each room of the

¹ इच्छित्वद्वृक्षं सुषुग्नमाच्छस्य, पश्चमुखाम्यायामः, विष्ट्यद्वृक्षा जङ्गा, चतुर्जङ्गा उत्तेजः, व्याङ्गुलादरं सधमावरयोः, शताङ्गुलः परिवाहः, पश्चमागावरं सधमावरयोः: — *Ibid.*

² “There are royal stables for the horses and elephants . . .” — Bk. III, Fragment xxxiv.

stable was to be double the length of a horse. It had four doors on the four sides, and an open space in the middle where horses could roll themselves.

The breadth of the apartment for each horse was to be four times the width of the horse, and its floor was to be paved with smooth wooden planks (स्त्रणफलकास्तारं). It must have a trough for food (सादनकोष्ठक), and be provided with apertures for the removal of excreta. The rooms should face preferably the north and the east. Horses, mares and colts had separate compartments.

There were spacious corridors (सप्रमीमा) in the stable provided with doors, and there were seats and pegs (चाचन-फलक) for monkeys, peacocks, spotted deer (शृण), mongooses (नकुल), partridges (चकोर), parrots (शक) and mainās (शारिका).¹ The object of keeping these animals in the stable becomes apparent from a passage

¹ चन्द्रविभवेनायतामचानाम् दिग्मुणविक्षारां चतुर्द्वारोपावर्त्त-
नमध्यं सप्रमीमां प्रदाराचनफलकयुक्तां वानर-मयूर-शृण-नकुल-
चकोर-शक-शारिकाभिराकीणां भासां निवेशयेत् ।

चाचनाम् चतुर्वर्षस्त्रणफलकास्तारं सादनकोष्ठकं सप्रम-
युक्तोत्तर्षमेकेकशः प्राद्यमुखमुद्दमुसं वा ज्ञानं निवेशयेत् ।
शास्त्रावशेन वा दिग्मिभागं कल्पयेत् । वडवाष्टविभौराणां
एकान्तेषु ।—(चाचनः) ।

in Bk. I, निशानप्रदिधिः, which runs as follows :—
 “Cats (मार्का), peacocks (मटूर), mungooses (मङ्गुळ) and spotted deer destroy snakes ; parrots (चक्र), mainds (शार्टिका) or fork-tailed shrikes (भूङ्गराज) shriek out when they smell poison ; ospreys (क्रीष्ण) get excited in the vicinity of poison, pheasants (जीवझीवक) feel distressed, cuckoos (मत्तकोकिल) die, and partridges (चकोर) reddens their eyes.”¹ It may be noted in this connexion that the practice of keeping monkeys in stables in the belief that horses keep good health in their company, still obtains.

Rations.

The superintendent regulated the rations of the horses under his charge in the following ways :—

For the best horse :—

	Quantities.	Modern equivalents.
2 drōgas (द्रोग) of any one of these grains, viz. शाखि, ग्रीष्मि (rice), barley (घेव), panio-seed or mustard-seed (प्रियरु) half- dried or half-cooked, or boiled मुङ्ग or माष (kinds of pulse)	9½ chataks.	

¹ मार्कोरमयूरमङ्गुळैषतोत्सर्गं स्वर्पान् भवत्यन्ति । शक्ता-
रिका भूङ्गराजो वा सर्पविषमङ्गाद्याद्यं क्रोष्टति । क्रीष्णो विषाभ्ये
मायति । मायति जीवझीवकः । चियते मत्तकोकिलः । चको-
रस्ताचिष्णी विरज्जते ।—Bk. I, निशानप्रदिधिः, p. 40.

Quantities.	Modern equivalents.
1 prastha (प्रस्था) of oil	$1\frac{1}{2}$ kancha.
5 palas (पल) of salt	$2\frac{1}{2}$ sikis.
50 palas of मांस (fleshy part or pulp of fruits)	1 chatak 4 sikis.
1 Adhaka (आडका) of रस (drink)	$1\frac{1}{2}$ chatak.
2 Adhakas of curd (दधि)	$2\frac{1}{2}$ chataks.
5 palas of sugar (चार) for making food palatable	$2\frac{1}{2}$ sikis.
1 prastha of liquor	$1\frac{1}{2}$ kancha.
2 prasthas of milk (पद्मः)	$2\frac{1}{2}$ kanchas.

Those horses that were tired by long journey or by carrying loads were given 1 prastha of oil or ghee more for perfuming their food (प्रसुप्ताचन), 1 kudumba ($1\frac{1}{2}$ siki) of oil or ghee for rubbing over the nose, $\frac{1}{2}$ bhâra (भार), i.e. $1\frac{1}{2}$ seer, of meadow-grass (पद्म), twice as much of straw (पत्ता) and hay for a bedding of 6 aratins (12 ft.) or as much straw as can be held within the arms (पड़तज्जः परिचेपः पुंजीचमात्रो वा वृषस्य मुजद्यपरिचंगमात्रः).

The same quantity of rations less by one-quarter was given to horses of medium and inferior quality. A draught horse or stallion of medium size was given the same quantity as the best horse, and draught horses of lower size the same quantity as a horse of medium quality.

Mares and mules (परामर्श) were given one-

quarter less of rations. A mare that had just given birth to a colt was given 1 prastha or $1\frac{1}{2}$ kancha of ghee for the first three days; then for the next ten days, 1 prastha, i.e. $1\frac{1}{2}$ kancha, of ग्राम (i.e. pounded gram, etc.), and oil or ghee mixed with medicine. Afterwards, she was given उक्का (boiled rice), घरस (meadow-grass), and other things suited to the season.

Half the rations of mares was generally given to colts; but a colt of ten days was fed on $\frac{1}{2}$ kudumba ($\frac{1}{4}$ siki) of ghee, 1 kudumba ($1\frac{1}{2}$ siki) of ग्राम and 1 prastha ($1\frac{1}{2}$ kancha) of milk till it was six months old. Gradually, the above rations were increased half as much during each succeeding month, with the addition of 1 prastha of barley, till it became three years old. It was given 1 drôña ($4\frac{1}{2}$ chataks) of barley until four years of age, when it became fully developed and serviceable.

Training given to horses.

Horses were employed for the purposes of war or for ordinary purposes, according to their mettle. They were therefore trained not only for ordinary work of the State in times of peace

(शौपदाचक), but also for the more difficult movements required in war (चालाचक). The latter movements were of the following kinds :—

(i) वृक्षान् (circular movement) :—(a) शौपदेषुक (turning in a circle with a diameter = 1 cubit); (b) वर्द्धमानक (advancing, and yet turning in a circle as above); (c) घमक (running the figure-of-eight); (d) आखीदमुत (running and jumping simultaneously); (e) हथाह (movement of only the forepart of the body); (f) लवचाली (movement of only the hinder portion of the body).

(ii) नीचैर्गत (slow movement with the head and ears kept erect) :—(a) प्रकीर्णक (a combination of the movements mentioned above); (b) प्रकीर्णोन्तर (same as the previous, but with one kind of movement kept prominent); (c) निषष्ट (a movement in which the hinder part of the body is kept steady); (d) पार्श्वानुष्टुप् (movement sideways); (e) उस्तिमार्ग (movement up and down like a wave); (f) गरभक्रीड़ा (playing like a गरभ, a kind of deer); (g) गरभमुत (leaping like a गरभ); (h) त्रिताल (a movement using only three legs); (i) वाल्लानुदृग् (moving right and left); (j) पद्मासन (movement by using two and three legs alternately); (k) सिंहायत

(pacing like a lion); (l) साधूत (long strides); (m) लिंग (moving straight without a rider); (n) चाचित (moving with the forepart of the body bent); (o) चूचित (moving with the hinder part of the body bent); (p) उच्चामिकीर्ण (zig-zag motion).

(iii) छड़न (jumping):—(a) कपिहुत (jumping like a monkey); (b) भेकडुग (jumping like a frog); (c) एकहुत (sudden jump); (d) एकपादहुत (jumping with one leg); (e) कोकिलसंचार (leaping like a cuckoo); (f) उरस (dashing with the breast almost touching the ground); (g) बकचारी (leaping like a crane).

(iv) भोरण (gallop):—(a) काङ (imitating the flight of a heron); (b) बारिकाङ (dashing like a water-duck); (c) भयूर (running like a peacock); (d) चर्मभयूर (half the speed of a peacock); (e) नाहूर (dashing like a mongoose); (f) चर्म-नाहूर (half the speed of a mongoose); (g) बाराह (running like a boar); (h) चर्मबाराह (half the speed of a boar).

(v) नारोड is चमात्रतिकार, i.e. response to signals.

Over and above these a few kinds of trot are enumerated as follows:—

(1) भार्न:—(a) विक्रम (trotting according to strength); (b) भक्षाभार्न (trotting with good

breathing); (c) भारवाह (trotting with a load on the back). (2) भारा:—(a) विक्रम (pacing according to strength); (b) वर्णित (pacing with circular movement); (c) उपकर्ष (pacing with gallops); (d) उपजन (middle speed); (e) जब (low speed).¹

Medical treatment of horses.

The superintendent had to report to the king the number of horses that were diseased or had defective limbs (अप्रभसान्यज्ञाधितांशब्देयेत्), and put them under the treatment of veterinary surgeons, whose duty was not only to treat the diseases of horses, but also to see that all parts of their body were harmoniously developing. They gave advice to the superintendent regarding the change of diet of the horses to suit particular seasons. They were fined if the diseases were aggravated or took a bad turn, and had to make good the loss if a horse died through defective treatment.²

¹ The explanation of the above technical terms has been taken mostly from the Commentary of Bhaṭṭasvāmi.

² अचान्ति चिकित्सकाः परीरक्षासद्विप्रतीकारमृतुविभक्तम् चाहारम् (प्रतिदिशेयुः)—(अचान्तः)।

क्रियार्थेष्यसङ्गेन व्याधिवृद्धी प्रतीकारद्विगुणो दण्डः । तदपराधेन वैज्ञाम्ये परमूलं दण्डः ।—*Ibid.*

A few other rules.

As regards the distances to be traversed by draught horses, the rule was that they should run six, nine, and twelve yojanas¹ according to their quality. Five, eight, and ten yojanas were the maximum limits of distance for riding horses.

Horses disabled by disease, age or war and rendered unfit for active service were relieved from all work.²

The grooms (खूबपालक), those who bound them in stables (खस्तक), supplied meadow-grass (यावसिकः), prepared the meals of horses (विधापालक), watched the stables (आनपालक), dressed their hair (केशकार), and detected poison (जाहुलीचित) were liable to a fine of a day's wages for neglect of duty.³ The जाहुलीचिरः were the grooms, cooks and veterinary surgeons, for it was they who had to taste the

¹ A yojana = 8½ miles.

पश्च इदं त्रिं योजनाम्यभा रथ्यानां पश्चयोजनाम्यभाद्भानि देवेति इष्टवाच्चानामचानामभा ।—(चत्वारिंशः) ।

² युद्धाभिजिताकर्मचीर्णाः पिष्ठगोचारिकाः खुरस्तमरप्रयोज्याः । पौरवानपदानाम् चर्येन वृश वहवादु चायोज्याः ।—*Ibid.*

³ कस्त्रितिक्रमे तेषां दिवसदेवतमन्तर्देवनं कुर्यात् ।—*Ibid.*

food of the horses.¹ The attendants of horses were enjoined to make a careful use of what they brought from the treasury or the store-house for purposes of the stables, so as to prevent waste.² There were expert rope-makers for making ropes for horses; while the manufacture of accoutrements was the work of the chariot-makers (चक्ताः).³

Ceremonies observed for the welfare of horses.

In conclusion, it should be remarked that horses were accorded an almost human treatment, which indicates the great value attached to them. Besides the rules prescribed by experience and science to secure the health and well-being of horses, there were certain religious ceremonies observed to influence unseen forces in their favour. The horses were regularly washed, bedaubed with sandal, and even garlanded twice a day. On new-moon days, the

¹ विधापादक सूखपादक चिकित्सकः प्रतिस्थादभाजः ।—*Ibid.*

² कोश्कोष्टागाराभ्याम् च गृहीता माहजाभम् अस्त्रवाहचिन्म-
यत् ।—*Ibid.*

³ तेषां वस्त्रनोपकरणं योग्याचार्याः प्रतिदिश्वेयः । सांपादिकं
रथाचालहारं च चक्ताः ।—*Ibid.*

sacrifice to *Bhūtas* was performed ; and on full-moon days, auspicious hymns were chanted. On the ninth day of the month of Âsvin, and also at the beginning and end of journeys, the priest invoked blessings on horses by performing the ceremony of आरति, or the waving of lights.¹

¹ हिरहस्तामसस्तान्ति गत्पतात्त्वं च दापयेत्
स्त्राव्यसम्बिषु भूतेच्चाः श्वसेषु सक्षिप्ताचनम् ।
नीराजनामाचयुजे कारयेत्प्रवस्येत्वनि
याचादाववसाने वा व्याधी वा शास्त्रिके रतः ।— *Ibid.*

CHAPTER IV.

THE DEPARTMENT OF LIVE STOCK (*continued*):
ELEPHANTS.

ONE of the four well-known divisions of the old Hindu army was the elephant force, on the efficiency of which depended to a great extent the efficiency of the army as a whole.¹ There has been on record many a battle in early Indian history in which elephants carried the day. Hence the rearing up of a good breed of elephants was recognized as one of the special cares of Chandra Gupta's Government, which made itself famous by the strength of its army organization. The killing of an elephant was visited even with capital punishment, which shows the great care taken for them by the State.

¹ The references in this chapter are to भूमिक्षद्विषानम्, इत्यध्यः and एसिप्रचारः Bk. II.

The department of elephants had several officers. At the head was वर्षाध्यक्ष, the superintendent of elephants, whose main duties were (1) to see that the elephant forests were well protected, and (2) to superintend the internal arrangements in the elephant stables and the proper training of elephants by experts. The immediate work of the maintenance and upkeep of the elephant preserves was, however, not his look-out. This was left to another officer called नागवनपाल, the superintendent of elephant forests. He had a staff of assistants called नागवनाध्यक्ष's, the keepers of elephant forests, through whom he had to acquaint himself with the limits as well as the paths leading into and out of the forests—especially those that were mountainous or boggy or contained rivers or lakes. The capture of elephants was also their concern, in which they were helped by a special set of men. These were: (i) वर्षिपक (elephant drivers); (ii) पादपात्रिक (those who slip nooses round the legs of elephants); (iii) छेमिक (boundary guards); (iv) पारिकर्मिक (servants for miscellaneous works); (v) वनचरक (foresters); and (vi) वनीकरक (elephant trainers).

The need for the presence of elephant trainers (एनोक्कर), mentioned last in the above list, was owing to the fact that they alone could readily ascertain those elephants that were fit for capture; for certain classes of elephants were exempted from capture, viz. those that had small tusks like those of female elephants (मूळ),¹ diseased (आधित) or pregnant elephants as well as those that suckled their young (गर्भिणी and चेनुका), and elephants below twenty years of age or without tusks (मक्क); young elephants (विल) were as a rule allowed to remain at large, and only a few were captured to train for sports.

The captors, with five or seven female elephants (हस्तिपत्रकी) which had been specially taught the devices of capture, roamed about in summer—the season for the capture of elephants—in the forests, and traced the whereabouts of herds of elephants by following the course of their dung and urine (हस्तिसूचपुरी-पञ्चगम्भ) and by observing their footmarks (पदा), the spots where they reposed (स्थापान), and the banks of rivers, lakes, etc., damaged by them (कुचपातोदेरेन). The captors passed along the

¹ *Vide* Bhatṭasvāmī's Commentary.

lines of भजातकी trees (*Semecarpus anacardium*), called *Bhela* (भेला) in Bengali. One of the reasons for this was perhaps that the trees, being very shady, afforded a good resting-place for the animals, where the herds or clues to their wanderings were most likely to be found. It is also possible that the leaves and branches of the trees formed a favourite food of the animals, for भजातक is mentioned as a medicinal plant in the extant works¹ on उत्तरायुर्वेद and अचार्यालय alike, the properties of which, according to medical authorities (quoted in *Elephants and their Diseases*, by Lt.-Col. Evans, p. 144), are mainly those of a stimulant, and admit of both internal and external uses.

The exact devices that were employed for catching the elephants are not described in the *Arthashastra*, but an extract from *Megasthenes*

¹ कृष्णो यदि वासे स्तुर्जाता भजातकैः सह
विपाच्य सार्वपं तेज्ज्ञ इष्टादृं चपयेद्वृष्टेः ।

—*उत्तरायुर्वेदः*, by पालकाय्यमुक्ति, p. 208.

मधुकै केशरं पर्व भजातकविभीतकम्

मधुपुष्पं वहा सर्वं समभावेन मित्रितम्

काषाणीस्य समुद्दिष्टः काषीत्य चिकित्साकैः

उदाहरदैकैः सदस्या कायापिदीपकः ।

—*चच्चेष्वकम्*, by नकुल, p. 68; see also p. 54 (*ibid.*).

bearing on this point is worth quoting. It runs as follows:—

"The manner of hunting the elephant is this. Round a bare patch of ground is dug a deep trench about 5 or 6 stadia (a stadium=202½ yds.) in extent, and over this is thrown a very narrow bridge which gives access to the enclosure. Into this enclosure are introduced three or four of the best-trained female elephants. The men themselves lie in ambush in concealed huts. The wild elephants do not approach this trap in the daytime, but they enter it at night, going in one by one. When all have passed the entrance, the men secretly close it up; then, introducing the strongest of the tame fighting elephants, they fight it out with the wild ones, whom at the same time they enfeeble with hunger. When the latter are overcome with fatigue, the boldest of the drivers dismount unobserved, and each man creeps under his own elephant, and from this position creeps under the belly of the wild elephant and ties his feet together."—Megasthenes, Bk. III, Fragment xxxvi.

The sources of supply of elephants in those days were the following places, viz. : (i) कच्छ, (ii) वाराण्सी, (iii) कक्षा¹ (eastern portion of the district of Shahabad in Behar), supplying elephants of the best quality; (iv) प्राची (the east), (v) द्वाराणी², (vi) वराल³ (western countries, viz. Konkan and Malabar), supplying elephants of medium quality; and (vii) गुजरात (Guzerat),

¹ N. L. Dey's *Geogr. Dict.*

² द्वाराणी has been identified with modern Mandasore.

³ *Vide* N. L. Dey's *Geogr. Dict.*

(viii) पश्चान्,¹ supplying elephants of inferior quality.

STABLES.

There were two sets of stables, one in the fort and the other outside; in the former were kept those elephants that had already been trained for war and riding, and in the latter those that were being tamed, together with the refractory ones.

An elephant stable was twice as high as the length of an elephant, and its width was half its height; it was made to face either the north or the east, had separate apartments for female elephants, had a spacious corridor (गोपा), and was provided with smooth, square, T-shaped tether-posts called कुमारी, which were as long as the length of an elephant, and between which were placed apertures for the removal of excreta. Their place for sleeping was similar to that for standing, with this difference, that in one half of it was a raised platform for the elephant to lean upon.

¹ पश्चान् probably stands for पश्चर, a place in Northern India, which is referred to in the Mahabharata, Sabha Parva, ch. 27, in connexion with the Northern conquests of Arjuna, thus: किरीटी जितवान् राजन् देशान् पश्चरांक्षतः ।

Stabling staff.

For the stablising of elephants a good number of officers was employed. A list of such officers set forth in the *Arthaśāstra* mentions the following: (i) चिकित्सक (elephant doctors); (ii) अनीकास (elephant trainers); (iii) आरोहक (ordinary drivers or *mîhuts*); (iv) आधोरण (expert *mîhuts* able to control the pace and movement of elephants); (v) उलिपक (grooms or elephant keepers); (vi) औपचारिक (attendants); (vii) विधापाचक (cooks); (viii) धारणिक (grass suppliers); (ix) पादपात्रिक (those who put fetters round their feet); (x) कुर्दीरण (guards); (xi) उपदायिक (those who take care of the elephants at night).

These officers were given wages and allowances of food, and a deduction was made from their dues for negligence in their duties, e.g. allowing a stranger to ride the elephants, striking them in the vital parts of their bodies, not cleansing the stables, etc.

Daily routine.

Their bathing hours were fixed once in the morning between 6 and 7.30 and again in

the afternoon between 3 and 4.30. The two bathing hours were followed by hours for meals. The forenoon was the time for their physical exercise, and afternoon for their training. Two out of the eight parts of the night were spent in sleep (स्वप्न) and three in drowsiness (संवेषणीतानिक).

Rations.

The quantity of ration to be given to an elephant was regulated generally according to its age, which was inferred from its size and other physical features; and for this purpose elephants were divided into three groups, viz. :—

(i) those that were 14 feet high, 18 feet long, and 20 feet in girth, and were from these measurements inferred to be of forty years of age; (ii) those that were thirty years old; and (iii) those that were twenty-five years old.

The diet for the second group was one-quarter less than that of the first; and the diet of the third group was one-quarter less than that of the second.

The dietary of the first group comprised the following:—

Quantities.	Modern equivalents.
1 drōpa of rice (तरुण)	4½ chataks.
1 Adhaka of oil (सैज)	1½ chatak.
8 prasthas of ghee (सर्पिण)	8½ kanchas.
10 palas of salt	4½ sikis.
50 palas of मांस, i.e. fleshy parts or pulp of fruits	1 chatak 4 sikis.
1 Adhaka of रस (drink) or 2 Adhakas of curd	1½ chatak.
10 palas of sugar (चाँट) for making food palatable	4½ sikis.
1 Adhaka of liquor (मद) or 2 Adhakas of milk (पशः)	1½ chatak.
2 bhāras of meadow-grass (यवस)	6 seers.
2½ bhāras of रस्य (sporting-grass)	6½ seers.
½ bhāra of hay	½ seer.
And any amount of stalks of various sorts of pulse.	

1 prastha of oil (1½ kancha) and $\frac{1}{2}$ prastha of the same ($\frac{3}{4}$ siki) were given respectively for rubbing the body and the head with, and $\frac{3}{4}$ prastha for a light in each apartment (प्रादीपिक).

An elephant of 16 feet in height, and in rut, was given the same amount of food as one of 14 feet, and the rest when in rut were given food according to their size. A young elephant captured for sports (विह) was fed on milk and meadow-grass.

TRAINING OF ELEPHANTS.

It was one of the most important duties of the superintendent of elephants to see that proper training was given to the animals under his charge by expert trainers. The elephants were divided into the following four classes according to their training :—

(i) दम्य (those that were being tamed); (ii) चालाञ्च (those trained for war); (iii) उपवाञ्च (those trained for riding, etc., in times of peace); (iv) आच (those that were refractory and difficult to be broken).

The taming of elephants had several clearly marked out stages.

The process began when the animal was brought to attach itself to a herd of tamed elephants, and lost its wildness by contact with them; this was called the यूथगत (juthagata) stage of the training. Then the animal was cleverly thrown into a pit specially dug, to subdue its ferocity; this was the अपपृतगत (apapृtagata) stage. The next step in the taming (चारिगत—vārigata) was to keep the animal confined within a particular area of the forest instead of allowing it to roam at large.

The next disciplinary measure was to tie the animal to a post when it was found to be sufficiently gentle for the purpose (स्तम्भगता—*stambhagata*). The taming was completed when the elephant became so gentle that it allowed its driver or trainer to sit on its withers without protest; this was the शून्धगता (*shundhagata*) stage.

Of the elephants tamed in the above way some were selected for military training and some for purposes of ordinary work.

As regards military training, the preliminary steps adopted were to accustom the elephant to girths (कस्ताकर्म) and collars (चेष्टकर्म) and to co-operation with a herd in a common work (यूषकर्म). Then the animal was taught the following movements necessary for war:—

(i) उपस्थान (rising, bending, jumping over fences, etc.); (ii) उंचान (turning); (iii) उत्थान (moving forward straight or transverse, or making serpentine movement); (iv) बधावध (killing and trampling down); (v) उत्तिष्ठ (fighting with other elephants); (vi) नागरायण (assailing forts and cities); and (vii) उपास्थिक (other cognate movements relating to war).

With regard to the training of elephants in

riding, they were first taken through the preliminary processes of discipline, through शारदकर्म,¹ चीनकर्म or drudge-work, and नारोइकर्म or responsiveness to signs. Then they were trained in the following movements, viz. :—

(i) चाचरण (nimble motion); (ii) कुचरौपवाह्य (being mounted from another elephant); (iii) धोरण (trotting); (iv) चाषानगतिक (moving with two or thrce legs); (v) यद्युपवाह्य (readiness to be driven by means of a stick only); (vi) तोनोपवाह्य (submitting to an iron hook); (vii) शुद्धोपवाह्य (readiness to be driven by mere signs); and (viii) भाग्यायुक (being trained in hunting).

Lastly, there were those elephants that were regarded as the failures of training. Their viciousness generally consisted in aversion to work, obstinacy, perversity, unsteadiness and bad temper. There were three classes of such elephants, viz. : (1) *suddha*, having unmitigated

¹ Bhaṭṭasvāmi has explained शारदकर्म as the process by which elephants unfit for work owing to excessive fatness or leanness, or other defects, were rendered useful. The word शारद also occurs in the इस्यायुक्तेद of पाण्डिकाय्युभिः, p. 49, to denote elephants that were weak, naturally, or through some disease or effect of medicines :

प्राणतः शारदो यस चमधातु चयाक्षया
प्रहत्या चाधिभिसापि दुर्बलसीरधैरपि ।

viciousness; (2) *survata*, clever at mischief; and (3) *vishama*, i.e. having vices of all types. The only way to keep them under control was by punishment and the use of fetters and other means to control their vicious tendencies. For these purposes there were in use bridles (पाराष्ट), leg-chains (पर्चेष), frontal fetters (जज्ञ), hooks (चक्र), and other mechanical devices.

ORNAMENTS.

Among the ornaments of elephants are mentioned necklaces such as दिनदी, चुरप्रसाद, as well as housings (चासरख) and howdah (कुच); and among war accoutrements are mentioned mail-armour (वर्म), clubs (तोमर), quivers of arrows (मराणाप), etc.

MEDICAL TREATMENT.

As in the case of cows and horses, there were doctors employed to apply medicines to elephants suffering from diseases due to over-work, rut or old age. Their chief duties were, however, preventive in their character—taking care that the physical conditions surrounding the life of the elephants conformed strictly to the rules of hygiene and

sanitation (आनधि). Failure to take the necessary steps for the health of elephants was punishable with fines. There was also inspection as regards the proper growth and harmonious development of all the parts of the body of an elephant. This was regulated according to several standards and types of its physical development.

There were also certain rules for the cutting of tusks of elephants. Elephants born in countries irrigated by rivers had speedy growth of tusks, which were cut once in two-and-a-half years; and for mountain elephants, whose tusks grew more slowly, it was done once in five years. The rule was to leave at the root a length equal to twice the circumference of the tusk measured at its base.

CEREMONIES FOR THE WELFARE OF ELEPHANTS.

Ceremonies were observed to propitiate unseen agencies for the welfare of elephants. Thus, वृत्ति or the waving of lights was performed thrice daily in the rainy season and at the periods of conjunction of two seasons. Sacrifices to *Bhūtas* were also performed on

new-moon and full-moon days, as also to चनानी or Kārtikeya, the god of war.

We have now completed our account of the Department of Live Stock in Chandra Gupta's Government, and have seen the comprehensive character of its scope and work touching the welfare and growth of the useful animals on which depended to a great extent both the economic prosperity and political security of the country.

CHAPTER V.

MEANS OF COMMUNICATION.

§ 1.—LAND ROUTES AND CONVEYANCES.

CONSIDERING the vast extent of the empire of Chandra Gupta, embracing as it did the whole of Northern India from the Bay of Bengal to the Arabian Sea, an area wider even than that of British India, it is evident that the machinery of government by which the administration of this mighty empire was carried on was highly elaborate and developed, the product of evolution through centuries. It implied the existence of all the principal factors on which depends the efficiency of such governments, viz., a well-disciplined army of sufficient strength, a well-organized system of administration, and a well-developed system of communication by which the heart of the empire was brought into constant and vital connexion

with its distant and various parts. We shall have occasion to speak in another place of the organization of Chandra Gupta's army and administration. In the present chapter we shall confine ourselves to an account of the means of communication that existed in Chandra Gupta's time, the network of roads, trade routes and water routes, etc., that, radiating from the centre at Pāṭaliputra towards the four quarters of the empire, covered up the entire territory embraced by it. Among the principal agencies of transport, we shall have to refer to vehicles and conveyances as also to ships and boats which established and carried on the intercourse not only between the different parts of the country along the recognized water routes, but also the intercourse of the empire with the outside world across the seas.

As already pointed out, the trade routes led towards all the four quarters of the empire—north, south, east and west, as is apparent from the passages quoted below. The number of routes in each direction seems to have been determined by consideration of traffic. From this standpoint Kauṭilya regards the routes leading to the south as more important than

those leading to the Himalayas; for while the latter brought to market the supply of blankets, skins and horses, the former facilitated the supply of such valuable commodities as diamonds and other precious stones, pearls, gold and conch-shells, of which Southern India was the noted home for ages. On the same considerations it is also stated that of the southern trade routes the more important were those that passed by a larger number of mines, carried a larger volume of traffic in merchandise of various kinds, and were hence used by a larger number of men. There were also other routes leading to the east and to the west, the importance of which was also determined as above.¹

One of these routes was undoubtedly what has been mentioned in Megasthenes as the "Royal Road"² connecting Pataliputra with

अल्पधेऽपि—“ चेन्वतो द्विषापथाच्छेयान् वस्त्यच-गन्ध-
दक्षा-जिन-कृष्ण-सुवर्ण-पण्णास्त्रारवत्तराः ॥—(इत्याचार्याः) ।

नेति कीठित्यः—“ कम्बलाजिनावपल्लवज्ञाः शश्वद्वक्षमचि-
मुक्ताम्भुवर्णपण्णाख प्रभूतत्तरा द्विषापथे । द्विषापथेऽपि वज्ञ-
वनिस्त्रारपणः प्रसिद्धगतिरक्ष्य-वायामो वा विक्षपयः चेयान् ।
प्रभूतविषयो वा फल्गुपणः । मेन पूर्वः पश्चिमव विक्षपयो
वायामातः ॥ ”—Bk. VII, कर्मसन्धिः, p. 298.

¹ Megasthenes, Bk. IV, Fragment lvi.

the Indus valley, and enabling the power of Chandra Gupta to be felt even in the regions of the North-Western frontiers which had been newly wrested from the hands of Seleucus Nikator.

But roads and trade routes¹ had a political importance besides an economic. To have control over them meant over-reaching the enemy. They were the means of transport of troops, messengers, envoys, as well as weapons, armour, chariots, pack-animals, etc.

Roads and trade routes were of various kinds, with various designations. They were classified (1) according as they were used by beasts of burden, men on foot or in conveyances, and (2) according to the destinations they led to. Thus, the राजमार्ग² (4 dandas or 32 feet wide) was the king's highway. It owed its

¹ वर्णक्रपयः परातिसम्भानस्य योनिः ; वर्णक्रपयेत् हि दद्य-
गृहपुरवातिमयम् शस्त्रावरथयानवाहनक्रयष्य क्रियते । प्रवेश्यो
मिर्षयन्ते च ।—Bk. VII, वीमशक्तिपूरथम्, p. 805; सप्रतिविहित
यानवाहनपुरवपरिवापः प्रतिष्ठेत्, etc.—Bk. I, दूतप्रशिद्धिः,
p. 80.

² निर्यातेभियाने च राजमार्गसुभयतः लक्तारचं दण्डिभिरपास-
ग्रजहस्तप्रवजितव्यहृ गच्छेत् । न पुरवस्थाधमवगाहेत् ।—Bk. I,
शास्त्ररचित्तकम्, p. 45; चतुः प्राचीना राजमार्गाक्षय उदीचीना
रत्नि वास्तुविभागः ।—Bk. II, दुर्गनिवेशः, p. 54.

name evidently to the fact that the king used it on solemn occasions, when it was cleared of crowds and guarded by soldiers with drawn swords. There used to be six such roads in a city, three running north and south and three east and west. रथा was the broad road, 4 dandas or 32 feet wide, along which chariots could run with ease. There is also mention of a रथपथ, apparently for smaller chariots, as it was only 5 aratnis or 10 feet wide. The पश्चपथ, having a width of 4 aratnis or 8 feet, was the road for cattle in general, while there were the मत्तापश्चपथ for the larger animals, and the चुद्रपश्चपथ for the smaller ones, having a width of 2 aratnis or 4 feet.¹ There were routes called चरोहपथ (*lit.*, for asses and camels). They were so made that they could be used whatever the season or the nature of the soil through which they passed. Besides the aforesaid roads, there was also distinguished a चक्रपथ (cart-track) which admitted of a larger volume of traffic than the पादपथ, and the मनुष्यपथ

¹ It should be noted that these roads took their names from the principal uses for which they were meant. It must not be thought that a road for the purpose which its name implies was not put to any other use for which it was fit.

(2 aratnis or 4 feet wide) meant for pedestrians only. The चंसपथ was a narrow road of the latter class.¹ Of these roads and routes some have been singled out in the Arthaśāstra as trade routes proper (वाणिकपथ). These are the चक्रपथ, पादपथ, चक्रपथ and चरोद्धरपथ. The reason of this distinction seems to be that the trade routes were usually of very great length and passed through a variety of soils and climes.

As has been already mentioned, there was also a class of roads that were designated according to their destinations. The राहपथ (4 daṇḍas or 32 feet wide) was the road leading to the districts. The road leading to pastures was known as विवीतपथ, and was of the same breadth. The approaches to the forts in the centre of 400 and 800 villages were known respectively as द्रोषसुचपथ and चानीयपथ, and were of equal breadth with the preceding.² The चयोनीयपथ led to the fields

¹ दुर्गमिवेषः—Bk. II; विवीतस्त्वेचपथहिंसा—Bk. III; and कर्मसुचिभिः—Bk. VII; सत्रापि चक्रपादपथयोचक्रपथो विपुला-रथालाच्छेयान देशकालसम्भावनो वा चरोद्धरपथः चाभ्याम् चंसपथो चाल्यातः—Bk. VII, कर्मसुचिभिः।

² चक्रपतपाम्यानभ्ये चानीयं, चतुर्ष्वातपाम्या द्रोषसुचं, द्विशत-पाम्या चार्वाचिकं, दभपामीरंपद्वेष सत्रुहर्षं चापयेत्।

—Bk. II, जनपदनिवेषः।

under cultivation (योनि=seed or grain). The road leading to a military station was called the युद्धपथ. The घातानपथ, as the name indicates, led to the cremation-grounds, while the घामपथ was a thoroughfare which led to and through a village. The above four classes of roads were all 8 dandas or 64 feet wide. The paths to forests were known as वनपथ (4 dandas or 32 feet wide), and those leading to elephant forests were called वर्ष्णियेनपथ (2 dandas or 16 feet wide). The roads leading to or passing over elevated and difficult places like embankments were designated as उत्तुपथ (4 dandas or 32 feet wide).¹

Besides the above classes, there are mentioned a few other roads peculiar to forts² :—

(i) रथचालीसार, i.e. roads for chariots, paved with planks cut from the trunks of palms, or with broad and thick slabs of stones. (ii) प्रतीकी, which was a broad passage between two towers (प्रदासक). (iii) देवपथ, which was the passage leading to a temple. (iv) Paths which were as broad as a danda (8 feet) or two and were called चावदी.

¹ दुर्गनिवेद.—Bk. II.

² दुर्गविधानम्.—Bk. II.

Among other minor roads may be mentioned the **खम्ब**, a defile or small path admitting passage for a single man.¹ **उपाख** is a small passage through fields,² etc., and **किरिका**³ a road in the city on which the workshop for the State goldsmith was built.

The free flow of traffic along the established roads and trade routes was naturally one of the cares of the State, and all interference with it was punishable. Suitable fines were imposed for blocking passage, which varied with the importance of the roads.⁴ The fines for blocking or digging some of the roads mentioned above are thus laid down in the *Arthashastra* : for **चुडपम्पय** and **मनुष्यपय**, 12 panas ; for **भृषपम्पय**, 24 panas ; for **हस्तिचेतपय**, 54 panas ; for **सेतुपय** and **बनपय**, 600 panas ; for **मशानपय** and **पासपय**, 200 panas ; for **दोषकुरुपय**, 500 panas ; for **खानीयपय**, **राहपय** and **विवीतपय**, 1000 panas ; for digging the roads too deep, four times the above fines were inflicted.

We now proceed to give an account of the

¹ **मस्तापिरसप्रविधयः**, **वीषधाष्टारप्रसारवधयः**—Bk. XII, p. 889.

² **वासुविक्रयः**—Bk. III, p. 169.

³ **चचमालायां चुवर्णापयः**—Bk. II, p. 85.

⁴ **विवीतचेतपयहिंसा**—Bk. III, p. 171.

various types of vehicles, conveyances and other means of land carriage which were then in use. First come *chariots*, the construction of which was placed under the supervision of the superintendent of chariots (रथाध्य), who had to see that the chariots built corresponded with the various sizes and types in vogue: for there are mentioned no less than seven different sizes of chariots with a normal height of 10 purushas, *i.e.* 10 feet, but with a width ranging from 6 to 12 feet. There are also mentioned six varieties of chariots for different purposes. Thus the देवरथ was the chariot for the idols, the पुष्टरथ was the festal chariot, the संपादिक war-chariot, the पारियानिक that used ordinarily for travelling. There was another class of war-chariots called the परपुरामियानिक for use in expeditions. Lastly, there was the चेमचिक or the chariot used in the period of training.¹

Among *minor vehicles*² we have the लघुयानम्, a small cart; the गोस्तिहम्, a cart of medium size drawn by bulls; and the शक्त or big cart.

¹ रथाध्यः—Bk. II.

² चुदपश्चमेन्द्रियस्तमारो माषकं दद्यात्; पव्व लघुयानम्, वड-गोस्तिहम्, सप्त शक्तम्—Bk. II, नारधर्मः, p. 127.

The carts were in very general use, and a brisk trade in them was carried on to meet the demand.¹

The chariots, carts² and other vehicles were usually drawn by camels, bulls or horses. The cart-driver was called चक्रचर.³

Lastly, the शिविका⁴ or palanquin was also a means of conveyance, शीडिका being another variety of the same.

As regards the king's conveyance, great precautions were taken to ensure his personal safety when he rode a horse, etc., or was carried in a chariot or other vehicle. Hereditary grooms and drivers were generally appointed, and stringent punishments meted out to those who stole or caused hurt to royal

¹ धात्वरससोहपस्याः शकटवद्वारिष्यस्य चिंशत्कराः—Bk. V, कोशाभिष्ठचरणम्, p. 241.

² गवाच्च-रथोद्वाषां च वज्रः—Bk. VII, शीनशक्तिपूरवम् । युद्धवाहनशक्तवद्वा दृष्टमाः—Bk. II, गोधृष्णः । कुर्याद्वाचयायोग्नं रथेष्वस्त्रयो नृपः—Bk. X, युद्धभूमयः, पत्त्वरथवस्तिकर्त्तव्यच, p. 869.

³ चक्रचरार्था वा शकट-वाटे-रपगच्छेत्—Bk. VII, सुभिकर्म्म, सुन्तिमोक्षच, p. 815.

⁴ इच्छमृद्गारवज्ञनशिविकापीडिकारयेषु च विशेषार्थम्—Bk. II, गदिकाराधरः, p. 128.

horses and elephants, and damage to royal carriages.¹

There were rules for the driving of vehicles to ensure the security of the passers-by. I need not, however, enter into these details.² Cart-stealing was severely punished.³ Special⁴ care was taken for repairing the roads, and favour was shown to the labourers by exempting them from taxes.

I conclude this account of land routes and conveyances by a reference to the facilities for travelling that were offered by the State. The supply of water and shade was one of the concerns of Government. Trees were planted along the roads, and water-storages were set up, ministering to the comfort of passers-by. There was also provision made by hotel-

¹ नीलपुरपाधिष्ठितं यानवाहनमारोहेत्—Bk. I, आवारचित्कामः; (पर्य) राजहस्त्यवरयान् दिंषकाम् खेनाक्षा शूलानारोहयेत्—Bk. IV, शूलधित्वद्यक्षयः, p. 227.

² *Vide* Bk. IV, अतिचारदण्डः ।

³ चक्रपुङ्कनावं चुक्रपश्चं याप्तवरत रकपादवधः चित्तो वा दण्डः—Bk. IV, रकाङ्गवधनिक्षयः, p. 225.

⁴ शोधयेत् पश्चस्त्वेष्य लीयमानं वरिकृपय—Bk. II, यनपदनिवेशः, p. 49; मध्यमवरं वा दुर्गेत्तुकमैविद्युपयश्चन्विवेश्चनिद्वयहृष्टिवनकर्मेयकारिण्यं प्रत्यनभवप्रसाणं वा न याचेत्—Bk. V, कोशभिसंहरणम्, p. 240.

keepers for the supply of food and resting-place to travellers.¹ These facilities anticipated those of Asoka as set forth in his Rock Edict II.

§ 2.—WATERWAYS AND SHIPS AND BOATS.

From the above it appears that the vast territories over which Chandra Gupta held sway were interconnected by a system of communications, which was one of the chief means of welding them together into one mighty empire governed from its centre at Pāṭaliputra. The means of communication thus established had, as I have already said, not merely a political significance; they helped to create and carry a large volume of inland trade which was equally instrumental in uniting the different parts of the empire in ties of common material interests.

The system of communications, however,

¹ तु सर्वेभुव्यापीप्रापिक-कथावकामोगनदादभिः अप-
सर्वयेत्—Bk. IV, वाक्यकर्मानुयोगः, p. 219.

सर्वोदकं आहार्योदकं वा संतुं बन्धयेत् । अन्योर्वा वा वशस्ति
भूमिमार्ग-द्वयोपकरणानुग्रहं कुर्यात् पुष्पकानारामार्थां च समूय
संतुवन्ध्यादप्रकामतः कर्मकरणस्तीवद्दौः कर्मकुर्याः—Bk. II, अन-
पदनिवेशः, p. 47; पुष्पकलवाटषष्ठकेदारमूर्छवापास्तुः—Bk. II,
समाहत्युपुदयप्रकामम्, p. 60.

could not be complete without the means of water-carriage, which in India, pre-eminently the land of rivers, were imperatively necessary. That these were fairly developed is quite evident from the *Arthashastra*; in fact, all matters relating to navigation, whether inland or oceanic, were dealt with by a separate admiralty department managed by various officers.

There were several classes of water routes: first, the ordinary river routes and the artificial waterways or canals (कृत्याः) which were greatly resorted to by traders on account of the undoubted cheapness of water-carriage. Kautilya, however, shows his preference¹ for land routes over water routes on account of the lesser risks involved in the former. Secondly, there were the routes for coastal traffic (कूलपथः)

¹ एतेन वसिक् पथो चात्यातः । स चापि—“वारिक्षङ्गपथयोर्बारिपथः चेदान् अस्पथयत्यायामः प्रभतपष्ठोदयत्” रत्याचार्याः । नेति कौटिल्यः—“संवद्वग्नतिरडार्बकालिकः प्रकृष्टभपथयानिनिध्यतिकारत् वारिपथः; विपरीतस्त्रहपथः । वारिपथे तु कूल-संयानपथयोः कूलपथः पथपहच्चवाङ्गस्याच्छेयाद्वदीपथी वा चात्याहिपच्चावाधवाच्” ।—Bk. VII, कर्मसुभिः, p. 298.

कौटिल्यः—“वारिक्षङ्गपथभोगयोरनित्यो वारिपथभोगो, वि-त्यस्त्रहपथभोगे रति” ।—Bk. VII, चन्द्रवसितसभिः, p. 294.

carrying on inter-portal communication. These were naturally more exposed to dangers than either the river routes or the land routes. Lastly, there were ocean routes (संसाधन) carrying on the intercourse of India with foreign countries across the sea. The existence of definite ocean routes, clearly marked out, no doubt implies a high degree of development of the art of navigation.

The natural risks of water-carriage were, however, overcome by the efficiency of the means of transport that were in use. Ships and boats were built of various descriptions suiting the purposes of both inland and marine navigation. In the Arthashastra mention is made of the following kinds of ships and boats :—

(i) संसाधनः नावः, *i.e.* ocean-going vessels. These ships had to pay tolls (मुद्रा) at the harbours (स्त्रेषु) at which they touched.¹ Amarakosha defines a संसाधनक as a merchantman (पोतवचिक).

(ii) प्रवहनः: This is another name for sea-going vessels, or more properly merchantmen, for it is thus defined in the commentary on

¹ संसाधनीनावः सेवानुगमाः मुद्रां शाचेत् ।

—Bk. II, नावधारः, p. 126.

उत्तराध्यनस्त्रैका, p. 246: शास्त्रिकाः चापारिषः महासुप्र
प्रवर्षेन्नरनि, i.e. "sea-going merchants cross the
main in प्रवर्षण."¹

(iii) शृङ्गमुक्तापारिषः नावः These were the boats
used for pearl-fishing in various parts of the
ocean. They were generally the property of
Government, but were also let out to private
individuals on payment of the necessary fee
(नीचाडक). But pearl-fishers were also allowed
to carry on their business in their own boats
(सनावः).²

(iv) महानावः These were big vessels for
use in those large rivers (महानदीषु) which
could not be forded even in the dry
seasons and were navigable throughout the
year.³

(v) The royal barge was another type of
boat, manned by trustworthy sailors (चाहना-
विकारिष्ठाः नौः). It had to be tagged on to
another boat, evidently for the safety of the
king. The king never used a vessel that had

¹ प्रवर्षणमित्तमेकोऽसात्यः उद्यानमात्यानावाहयेत् ।

—Bk. I, उपभास-श्रीचारीचानन्दमात्याम्, p. 17.

² शृङ्गमुक्तापारिष्ठो नीचाडकान् दसु, सनीमिर्ण तरेयुः ।

—(नावधारः) ।

³ महानावो देसनपीमात्याव्यादु महानदीयुप्रयोजयेत् ।—Ibid.

once been weather-beaten, and, as a further precautionary measure, soldiers were stationed on the bank or shore when he boarded a vessel.¹

(vi) चुड़काः नावः These were small boats specially meant for use in small and shallow rivers (चुड़िकादु) that overflowed in the rains.²

(vii) सररथानि Besides the Government ferry-boats, there were also ferry-boats belonging to private persons. These were allowed to cross the rivers at all times and places.³

(viii) विचिकाः These were the pirate ships and boats. The admiralty regulation was that they should be pursued and destroyed whenever they were found. The same regulation applied to the ships and boats of an enemy's country when they crossed its limits (चमिचविद्यातिगाः) and also to vessels violating harbour rules (पर्यपत्तनचारिकोपषातिकाः).⁴

¹ नावं आप्नाविकाभिहितामन्यनीप्रतिवर्ता (आरोहेत्) ; बातवेगवर्णा च नोपेयात् । उदकाने सैन्यमासीत् ।

—Bk. I, आत्मरहितकम्, p. 44.

² चुड़काः (नावः) चुड़िकादु वर्णाविद्यीषु ।—(नावधातः) ।

³ *Ibid.*

⁴ विचिकाः निर्वातयेत् । चमिचविद्यातिगाः पर्यपत्तनचारिकोपषातिकाः—(नावधातः) ।

A reference has now to be made to the crew for manning ships and boats. The captain of a ship was called the नावक, and the steersman the नियामक. There were also the sailors, with sickles and ropes, known as दाढ़रमिपाढ़काः. Lastly, there was a staff of sailors whose duty it was to bale out water (जन्मेचकाः).¹

Besides the regular ships and boats, there were devised various other means of water-carriage. These were (a) काष्ठसङ्गात—pieces of timber tied together, serving the purposes of a boat; (b) बेशुसङ्गात—a boat made of bamboos tied together; (c) असावु—a vessel made of the bottle-gourd; (d) चर्मकरण—a basket covered with skin; (e) इति—a leather bag that could be floated and used as a boat; (f) झट—canoe; (g) गच्छिका—a floating device made of the leather of the rhinoceros; (h) बेणिका—a float of reeds, etc., woven together.²

Other means³ of crossing water were the bridges of various kinds. Besides the ordinary

¹ Vide नावधार. Cf. the list of crew as given by अमरकोशः—“कर्षधारकुदाविकः नियामकाः पोतवाहाः।”

² अलिखनमस्त्रामस्त्रेतुवन्नीकाहवेशुसङ्गातेः असावुचर्मक-रणहतिशब्दगच्छिकावेणिकाभिश्चोदकानि नारयेत्—Bk. X, स्त्रभा-

bridges (चेतुमन्त्र) there were also the bridges of boats as well as the bridges formed by elephants standing in a row.

In the chapter नावधनः there are a few rules relating to the duties of the नावधन (the superintendent of the admiralty department), of the उच्चधन (the superintendent of ocean-mines) and of the पक्षनाधन (the superintendent of ports). There are also mentioned the regulations as to the collection of taxes and ferry charges (नारदेय), repair of ships and boats, time and place for crossing rivers, entrance of foreign merchants into the country, arrest of suspected persons, and concessions made to some classes of persons as regards crossing and ferry fees, e.g. children, old men, etc.

वारप्रथाशम्, p. 868; वर्णराचमनपपामाः पूरवेष्ठामुत्थन्त वसेदुः ।
काष्ठवेषु नावचापगटक्षीयुः—Bk. IV, उपनिपातप्रतीकारः, p. 206.

उच्चमानमष्ठावुहतिष्ठवगच्छिकावेषिकाभिष्ठारयेयुः । उच्चमित्त-
रता इदमपश्चो दद्धः, उच्चव भवक्षीनेभः ।—Bk. IV, उपनि-
पातप्रतीकारः, p. 206.

नदीदुर्ग च इस्तिष्ठमस्त्वं सेतुमन्त्रनौभिस्त्राध्यमित्यगामीर्य-
मपवायुदकं च—Bk. VII, भूमिसंभिः, p. 292.

शिविरमाग्नेतुकूपतीर्थोधनकर्त्यन्नायधावरणोपकरणपाम-
वहनमाधोधनाच प्रहरणावरणप्रतिविहापनयनमिति विष्ट-
कर्माणि—Bk. X, पत्यवरयहस्तिकर्माणिच, p. 869.

Besides these, there were a few other rules regarding deposits in ships, the rate of interest for money lent or borrowed by sea traders (सामुद्राण) and the punishment for stealing boats.¹

It is apparent from the above that intercourse was established in that ancient time between the empire of Chandra Gupta and very distant places. That foreign merchants used to come to his empire and that commerce was carried on with distant countries are evident from references made to them in several passages under the names of पारबिषिकाः², सामुद्राण³, सार्थकानपानानि⁴, and also by the use of such expressions as “देशकालान्तरितानां तु पश्चान्ता”⁵

¹ नाविनिमध्यायां तु चितायां स्थमुपरूपो नोपनिधिमध्याभवेत्—Bk. III, चौपनिधिकम्, p. 177; विश्वतिपणा सामुद्राणां । ततः परं कर्तुः कारवित्युच पूर्वस्माहसदेषः—Bk. III, चरणादामस्, p. 174; नाविकसार्थवाहेभ्य विश्वारमायतिक्षमं दद्यात्। अनभियोगदावेषाग्रन्थानामन्यत्र सभ्योपकारिभ्यः—Bk. II, पश्चाध्यक्षः, p. 98.

चक्रद्युल्लं नावं सुद्रपश्यं वायपहरते चेकपादवधः चिग्रतो वा देषः—Bk. IV, एकाङ्गवधनिक्षयः, p. 225.

² *Vide* नावध्यक्षः ।

³ Bk. III, चरणादामस् ।

⁴ Bk. I, अवदहहसमवस्त्रे च हसिः ।

⁵ Bk. IV, वैदेहक-रचनम्; see also पश्चाध्यक्षः—Bk. II; कर्मचन्दिः—Bk. VII, etc.

etc. Lastly, in the chapter entitled कोशप्रबोध-रत्नपरीक्षा in Book II, among other things it is mentioned that कालेयक, a kind of sandal, came from सर्वभूमि, i.e. Burma; चीनभूमिजाः चीनपदाः, fabrics of Chinese manufacture, came from that distant country; and gems of various kinds, as well as अग्र (the fragrant Aloe-wood) of several sorts, came from Ceylon (पारस्पुद).¹ There are mentioned many other names of distant countries the products of which were brought into the empire by the means of intercourse that were established, but those already quoted are sufficient for our purpose.

¹ Mr. N. L. Dey has very rightly restored the word *Pulasi-mundu* of the *Periplus of the Erythraean Sea* to its proper form as *Purasamudru* (पारस्पुद) in the second edition of his *Geographical Dictionary of Ancient and Medieval India*, the manuscript of which he has kindly allowed me to consult. His restoration of the word is confirmed by Bhatṭasvāmī's Commentary, which says that the fragrant Aloe-wood, called *Purasamadruka* after the place where it grows, is obtained in *Sinhala* (Ceylon).

CHAPTER VI.

MINOR WORKS OF PUBLIC UTILITY.

IN the previous chapters has been described the field of activity covered by some of the major works of public utility. In the present, an account will be given of some of the minor measures that were adopted, and the institutions that were established, for the promotion of the welfare of the people in certain special directions. These, roughly speaking, were connected with the relief and alleviation of sickness, poverty and distress, as well as with the patronage and encouragement of merit.

MEDICAL AIDS, SANITATION, ETC.

It is well known that in ancient India, as far back as the age of Buddha, much progress was made in medicine and surgery, which were fast being applied to the relief of human

suffering. "According to the Indian tradition preserved in the Buddhist Jātakas or Folklore, there existed in India in the age of Buddha two great universities or seats of learning, in which 'all sciences,' including medicine, were taught by 'professors of world-wide renown.' These two universities were Kāśī or Benares in the east, and the still more famous Takṣaśilā or Taxila (on the Jhelam river) in the west. In the latter university in the time of Buddha or shortly before it, the leading professor of medicine was Ātreya. He, accordingly, should have flourished at some time in the sixth century B.C. As one of the names of Suśruta's teacher is Kāśīrāja, which literally means King of Kāśī, he may not unreasonably have referred to the University of Kāśī or Benares."¹ Jīvaka, the famous physician who was contemporaneous with Buddha, is stated to have studied medicine in the Taxila university under Ātreya.² The Vinaya Piṭakas also give us some information on this point.³ "Rules for preparing various kinds of medica-

¹ Hoernle's *Studies in the Medicine of Ancient India*, pp. 7, 8.

² Rockhill's *Life of Buddha*, p. 65.

³ Vinaya Piṭakas: Mahāvagga VI, 1-15 and 17-21.

iments, as well as medical and surgical operations," says Prof. Kern, "are prescribed in the Vinaya, so that we get some notion of the condition of medical science in the period when that part of the canon was composed."¹ From these evidences, which are sufficient for the present purpose, we get an idea of the state of Indian medical science as far back as the time of Buddha, or even before it, and the advancement it attained in medicine and surgery. The degree of progress achieved in Chandra Gupta's time will be evident from the measures adopted by his Government to secure the health of his people. We learn from Megasthenes² that of the six bodies that were in charge of the city, one had "to attend to the entertainment of foreigners. . . . *They took care of them when they were sick, and if they died buried them.*" Thus the care and treatment of the sick foreigners formed one of the duties of Government. This shows that physicians, with medicines and appliances, had to be kept in readiness to meet the emergencies. Arrian, moreover, refers to an

¹ Kern's *Manual of Indian Buddhism*, p. 85.

² Megasthenes, Bk. III, Fragment xxxiv.

interesting incident which reflects no small credit on the Indian physicians of the day. Alexander had in his train several proficient Greek physicians, but they confessed their inability to deal with the cases of snake-bite very common in the Punjab. Alexander was obliged to consult the Indian *Vaidyus*, who successfully treated these cases. The Macedonian king was so struck with their skill that, according to Nearchos, he employed some good *Vaidyus*, and ordered his followers to consult them in cases of snake-bite and other dangerous ailments.

That there were hospitals with store-rooms (मिष्यागार) containing medicines in such large quantities as could not be exhausted by years of use, is evident from the passages in the *Arthaśāstra* quoted below.¹ To the old store fresh supplies were constantly added.

In the *Arthaśāstra* there are references to four classes of medical experts, viz. भिषजः or चिकित्सकः, i.e. ordinary physicians; जात्यर्थिरः,

¹ उत्तरपश्चिमं भागं पश्चभिष्यत्यस्तद्दम् ।—Bk. II, दुर्गतिवेगः, p. 55; सुपर्क्षेत्रधान्यारक्षवद्यमेवत्य . . . भिषज्यात् चमेकवर्षो-पभोगसप्ताम् कारयेत् । नवेनामवं गोषयेत्—*Ibid.*, p. 68. See also p. 44, Bk. I, शात्वरपश्चिमकम् ।

i.e. those who could readily detect poison; गर्भाविषकाः or दूतिकार्चिकित्सकाः, i.e. midwives; and army surgeons and nurses.¹

The army surgeons with surgical instruments (मज्ज) and appliances (यन्त्र), remedial oils (अमरस्तेषु) and bandages (पट), and nurses with appropriate food and beverage, accompanied the army, and encouraged the soldiers.² For the treatment of the diseases of animals, there were the veterinary surgeons referred to in the previous chapters on the subject of live stock.

Several steps were taken for the plantation and growth of medicinal plants and herbs. Portions of fields cultivated directly under Government supervision were set apart and used for this purpose. These herbs were also grown in pots.³

Again, in the royal households, all kinds of

¹ भिषजः and जागृतीविदः—Bk. I, आमरचितकम्, p. 48; गर्भाविषकाः—Bk. I, निग्रामप्रशिदिः, p. 41; दूतिकार्चिकित्सकाः—Bk. II, नागरकप्रशिदिः, p. 148.

² चिकित्सकाः रसयन्नामदेहवस्त्रहस्ताः क्षयवाह्नपानरचित्य-पुरुषादासु इव दीया इष्टतिष्ठेयः ।—Bk. X, कृष्णपुरविकर्षाः, etc., p. 367.

³ Bk. II, चीताभ्यः, p. 117.

medicines useful in midwifery were kept, and the well-known medicinal herbs were grown in pots. Specified plants were also planted in the compounds of houses to ward off snakes. Cats, peacocks, mungooses and spotted deer were also kept there for the purpose. The shriek of birds such as mainā, parrot, etc., which cry out in the vicinity of snake poison, was utilized. The following birds were also kept for their sensitiveness to poison, viz., the heron that swooned, the cuckoo that fell dead, and the partridge that reddened the eyes at the smell of poison.¹

The State controlled and regulated medical practice in the land.² Laws were enacted to ensure that medical practitioners exercised due caution in treatment of patients. Every case of dangerous disease had to be reported to Government, failing which, the physician was fined. There was a penalty attaching to a proved case of carelessness on the part of a physician causing the death of a patient, while the aggravation of disease owing to his negligence was treated very much like a case of

¹ Bk. I, निरानन्दप्रस्तुधिः ।

² Bk. IV, काष्ठकारधर्मः ।

assault or violence.¹ Thus the physicians were cautioned against "gathering experience" at the cost of the lives of hundreds of patients.

Measures were also taken for prevention of diseases. Thus, adulteration of all kinds was punished, *e.g.* adulteration of grains, oils, alkalies, salts, scents and medicines.² The health of the people in cities or crowded places was secured by sanitary measures. Throwing dirt, or causing mire or water to collect in roads and highways was punishable. Committing nuisance near temples, royal buildings and places of pilgrimage, or in reservoirs of water, was penalized, but exceptions were made when this was due to disease or effect of medicine. Throwing inside the city the carcases of animals, or human corpses, was also visited with fines. Carrying dead bodies through gates or along paths not meant for the purpose, as well as the interring or cremation

¹ Cf. S. B. E., Vishnu, v, 176-177; Yājñavalkya, II, 242; and Manu, IX, 284—"All physicians who treat their patients wrongly shall pay a fine: in the case of animals, the first or lowest, and in the case of human beings the middlemost amercement." Narada adds: "But this refers to cases when death is not the result of the wrong treatment; for if that is the case, the punishment is greater."

² Bk. IV, दैदेहकरचरम् ।

of dead bodies beyond the limits of the prescribed burial-places and crematories, was also a violation of the sanitary regulations.¹

Remedial measures, medical as well as religious, were adopted to ward off pestilences. In times of epidemic, physicians had to be busy distributing medicines, and ascetics and priests with their auspicious and purificatory ceremonials.²

The precautions taken for the health of the king were as follows:—Medical experts were appointed to detect poison. The medicines that were served out to the king were in the first instance proved as to their purity and then tasted by the physician, the decoctioner (पाचक) and the purveyor together.³

Post-mortem examination (चाष्टमृतकपरीचा).—It is noteworthy that there was arrangement in those days for post-mortem examination.⁴ For this purpose the corpse was smeared with oil to prevent putrefaction. All cases of violent death caused, for instance, by suffoca-

¹ Bk. II, भाग्यकप्रसिद्धिः ।

² Bk. IV, उपनिषात्प्रतीकारः ।

³ Bk. I, चात्मरचितकम् ।

⁴ Bk. IV, चाष्टमृतकपरीचा ।

tion, hanging, drowning, etc., or by poisoning, were at once brought to the morgue, and the medical officers in charge had to find out as far as possible the exact cause of death from an examination of the symptoms, several of which are enumerated in the *Arthaśāstra*. The whole affair was subjected to a careful scrutiny, and if foul play was suspected, evidence was taken and the matter left to be disposed of in the law court.

Before we leave this subject it should be noted that the University of Takshashilā, where Pāṇini and Jīvaka were taught, must have continued to exist in its pristine glory at the time of Chandra Gupta, teaching the medical science which was included in its curriculum as before. Arrian describes Takshashilā as "a large and wealthy city and the most populous between the Indus and the Hydaspes." Pliny and Strabo also testify to its vast dimension and populousness. Its high repute as a wealthy city continued for many years after Alexander's invasion,¹ and its importance may be deduced from the fact that it continued to be the

¹ Cunningham's *Archaeological Survey Report*, vol. ii, pp. 112, 118.

capital of the Punjab and residence of the viceroys under the early Maurya kings. Asoka lived here as viceroy during the lifetime of his father. These circumstances, as also the fact that we do not hear of any other university in Western India at the time of Chandra Gupta, confirm the aforesaid view. Though it is not distinctly stated in the *Atthakathā*, as quoted by Turnour in his *Mahāwanso*,¹ that Kauṭilya, the minister of Chandra Gupta, was taught in the University of Takshaśilā, yet, considering that he was an inhabitant of that town and that he achieved the knowledge of the three *Vedas*, could rehearse the *Mantras* and wrote several treatises on diverse subjects, we cannot resist the inference that he must have availed himself of the advantages which the university of his own town, so famous for its teaching in all the branches of learning, could afford.

INSURANCE AGAINST FAMINE, FLOOD AND FIRE.

We shall now turn to the measures taken for protecting the people against the ravages of famine, flood, fire, etc.

¹ Introduction, p. xxxix.

As a general preventive against famine and other such calamities, it was laid down that in the Government store-house only half of the garnered articles should be used and the other half reserved.¹

The king had also special duties to perform towards his people during famine. In the first place, he had to provide them with seeds to secure a good harvest in future. When the famine had already overtaken the people, he started relief work (i) by दुर्गतकर्म, i.e. works given to the famine-stricken for wage-earning, (ii) by free distribution of alms from the store-house referred to above, (iii) by the abandonment of his country to some other king (देशनिषेप), (iv) by taking help from allies, (v) by making the rich contribute to the famine fund, (vi) by temporary emigration with his subjects to a different kingdom with abundance of crops, (vii) by emigrating to the sea-shores or to the banks of rivers or lakes where he founded a new settlement and employed his subjects in growing grains, vegetables, etc., as

¹ Bk. II, कोषागाराभ्युः।

well as in hunting and fishing on a large scale.¹

As a precautionary measure against floods during the rainy season, the people were made to remove from the banks of rivers, etc., in due time. Those who possessed or could procure canoes and other means of safety and escape were enjoined, under the penalty of fines, to give every possible help to persons falling victims to floods in spite of all precautions. Coupled with the above means was the performance of religious and other ceremonials to propitiate the spirits and the gods.²

Measures for the extermination of pests were also taken by Government. These "pests" generally included rats, locusts, injurious birds and insects, and tigers. To destroy rats, cats and mungooses were let loose; some varieties of poison were also used for the purpose. To kill tigers, several kinds of

¹ दुर्भिष्ठे राजा वीरभद्रोपग्न्त लतानुपर्वं कुर्यात् । दुर्भ-
कर्म वा भक्तानुपर्वे भक्तसंविभाग वा देवनिषेपं वा । सिंचादि
वा शपाशयेत् । कर्मनं वसनं वा कुर्यात् । निष्पद्वस्यामन्यविषयं
वा सजनपदो यायात् । चमुदसरक्षटाकानि वा संत्वयेत् । धान्य-
शक्तमूलफलादापान् सेतुपुं कुर्याति । मृगपश्चात्याक्षमस्यारभान्
वा ।—Bk. IV., उपनिषातप्रसीकारः, p. 207.

² Bk. IV., उपनिषातप्रसीकारः ।

poison were in use; sometimes hunters were employed, and several methods of entrapping were also resorted to.¹

There were various regulations to protect person and property from fire. The danger from fire seems to have been very common, considering the material of which the buildings of the period were mostly constructed, viz. wood instead of stone.² Megasthenes informs us that "such cities as were situated on the banks of rivers or on the sea-coast were built of wood instead of brick, being meant to last only for a time, so destructive were the heavy rains which poured down; and the rivers also, when they overflowed their banks, inundated the plains; while those cities which stood on commanding situations and lofty eminences were built of brick and mud."³ It is also known, on

¹ Bk. IV, अपनिपातप्रसीकारः ।

² V. Smith's *Hist. of Fine Art*, p. 18: "Abundant evidence establishes the fact that Indian architects before the time of Asoka built their superstructures chiefly of timber, using brick almost exclusively for foundations and plinths. No deficiency in dignity or grandeur was involved by the use of the more perishable material." The present excavations at Pāṭaliputra are leading to the discovery of many wooden structures, e.g. pillars, platforms, etc. We are anxiously awaiting a corroboration of our views on this point by such findings.

³ Megasthenes, Bk. II, Fragment xxvi.

the authority of the same Greek ambassador, that Pāṭaliputra, the capital, was surrounded by "a wooden wall pierced with loopholes for the discharge of arrows."¹ Wood seems to have been very extensively used in those days for building and other purposes, and therefore several precautions were taken and several rules laid down governing the use of fire.

During summer, villagers had to do their cooking in the open air, if they were not already equipped with what was called the *ten remedial instruments* (दशमूलीषय).² These were (i) five water-pots (पचवाः); (ii) कुञ्ज, a water-vessel of that name; (iii) शोषी, which, according to Bhaṭṭasvāmī, was a water-tub made of wood and kept at the door of a house; (iv) निचेषी, a ladder; (v) पराङ्म, an axe to cut beams, etc.; (vi) घर्ष, a winnowing-basket to blow off smoke; (vii) अङ्गुष्ठ, a hook to pull down the burning pieces of wood; (viii) कण्ठ, ropes, etc.; (ix) परम्परी, a basket for removing articles from the store-room, etc.; and (x) दर्ता, a leather bag for the same purpose as the preceding.

¹ Bk. II, Fragment xxv.

² Bk. IV, उपनिषादप्रस्तीकारः ।

In the city, every householder had to provide himself with the ten remedial instruments. During summer the kindling of fire was prohibited during the second and third quarters of the day. All men were enjoined, under the penalty of fines, to run to give help, in case fire broke out in any house. Thousands of vessels filled with water had to be kept in rows not only in the big roads but also at the crossings of roads and in front of royal buildings. The masters of the houses had to sleep at night in a place near the main doors of their premises, so that they might be easily accessible and come out of their houses to give help without delay. Thatched roofs made of straw and other materials that readily take fire, were not allowed within the city. Those who worked by fire, e.g. blacksmiths, had to live in a particular quarter of the city. Persons wilfully setting fire to a house were severely dealt with. If it was through negligence, only fines were imposed.¹

¹ अपितौकारं च पीये सधमयोरक्षतु भाग्योः अहमागोऽपिददः । वहिरधियर्थं वा कुर्यात् । पादः पवधीना कुम्भदोषी-नित्रेद्वौपरम्पराहृष्ट-कचमहसीहतीनां च अकरणे । हस्तकठ-चुद्रान्यपतयेत् । अपिजीविन रक्षामं वास्तयेत् । सप्तहप्र-

To propitiate Fire, offerings were made to him every day and prayers said.¹

A FEW OTHER WORKS OF PUBLIC UTILITY.

We shall now turn to a few miscellaneous works of public utility, which are not without some interest. These were :—

(i) *Jail deliveries*.—To celebrate the anniversaries of the king's birthday and in commemoration of the birth of a prince, the installation of an heir-apparent, or the conquest of a new country, prisoners were set at large. Generally, on full-moon days, such prisoners as were very young, old or diseased were let out. Sometimes the prisoners were set free in consideration of their uniformly good conduct in the jail.²

(ii) *Advocacy of temperance*.—Only a limited number of people was allowed to take part in

द्वारेषु गृहस्थानिनो वसेयुः । असंपातिनो रात्री रथादु कटव-
जाप्तु गृहवं तिष्ठेयुः । चतुर्पद्धारे राजप्ररिपेषु च । प्रदीप-
समभिखादसो गृहस्थानिनो द्वादशपद्मो दण्डः । यद्यप्तो विक्र-
यिष्यः । प्रमादादीपेषु चतुर्पद्माद्यत्पद्मो दण्डः प्रादीपिकोऽपिना-
वधः ।—Bk. II, नागरकप्रश्निधिः, p. 145.

¹ Bk. IV, उपनिषादप्रतीकारः ।

² Bk. II, नागरकप्रश्निधिः ।

liquor traffic, and a heavy fine was imposed on those who violated the rule. Liquor was sold only in small quantities not exceeding 1 prastha or $1\frac{1}{2}$ kancha in any case. Liquor shops were not allowed to be set up close to one another, and a Brâhmañ who took to drinking was very severely punished.¹

(iii) *Grant of jagirs, etc.*—Brâhmañs performing sacrifices, spiritual guides, priests—all of them learned in the *Vedas*—were granted lands yielding sufficient produce and exempt from taxes. They were also given forests of *soma* essential to sacrifices.²

The wives and children of those officers who died while on duty received allowances. Infants and aged or diseased persons related to the deceased officers were shown favour. Under pecuniary stress, the officers were given forest produce, fields, cattle, etc., along with a small amount of money.³ Indigent widows and disabled women and girls were provided with work in the weaving depart-

¹ See शुराध्याक्षः—Bk. II, p. 119, and वाचवक्त्रमीनदोगः—Bk. IV, p. 220.

² Bk. II, भूमिद्विविधानम् ।

³ Bk. V, भूत्यभरत्यीयम् ।

ment of the State. Those women and girls who did not come out of their houses in strict observance of the *Pardd* system but were compelled by poverty to work for subsistence, had their work brought within their reach daily by women servants of the weaving-house.¹

(iv) Government seems to have kept a close watch that the claims of slaves, hirelings and dependents were not over-ridden. Elders of villages were entrusted with the duty of looking after the orphan minors in a village, and no person having wife and children was allowed to become an ascetic until he had made adequate provision for their maintenance. The State provided with maintenance the infirm and afflicted.²

¹ Bk. II, असाध्यः ।

² Bk. II, अपदनिवेदः ।

CHAPTER VII.

THE CENSUS.

IT is interesting to know that there was some form of census current in India over two thousand years ago. Megasthenes hints at this in the following extract we make from his account:—

“The third body of superintendents consists of those who inquire when and how births and deaths occur, with the view not only of levying a tax but also in order that births and deaths among both high and low may not escape the cognizance of Government.”¹

The testimony of Megasthenes is amply confirmed by the details of census and similar operations preserved in the *Arthashastra*. The necessity to Government of an intimate knowledge of the places and people under it goes without saying, and it is no wonder

¹ Megasthenes, Bk. III, Fragment xxxii.

that in the effective administrative organization of Chandra Gupta there was found a place for census operations, the scope and aims of which were, however, necessarily different from those of similar operations in modern times.

The distinguishing feature of Chandra Gupta's census appears to be that it was not periodical, but a permanent institution—a department of the State run by permanent officials. The department was a large one, manned by several officers. The head of the department was called *समाचार्ता*, *i.e.* collector-general, who combined in himself, besides those connected with the census, various other functions, such as collection of revenue, checking accounts, land survey, and the like. The area under his administration was in the first instance divided into four districts, and each district into a number of villages. Each district was placed under an officer (*आनिक*), and under him was appointed a number of subordinate village officers (*गोप*), whose work was supervised by their superiors, the district officers. The village officer was put in charge of five or ten villages, according to the directions of the

collector-general.¹ Besides these, inspectors (प्रदेशार) were appointed for checking both the work and methods of the village and district officers. But this inspection was not enough. Over and above the inspectors, a special batch of officers was appointed by the collector-general to work as spies and "overseers" under various disguises on their own independent lines and supply information on their own account. The sphere of work of the spies was not identical with that of the village officers, for it included certain points of inquiry to which the village officers had to attend, and at the same time a few independent heads of inquiry, as will be explained below.

The functions of the village officers (excluding those in connection with the land survey) were these² :—To number the inhabit-

¹ समाहर्ता चतुर्धी जनपदं विभक्त्य व्येष्ट-सभ्यम्-कनिष्ठ-विभागेन पासाम् परिचारकमायुधीयं वाच्यपश्चुचिराकुपयिष्ठिकर-प्रतिकरमिदमेतावदिति निवन्धयेत् । तत्प्रदिष्टः पश्चपासी दस-पासी वा गोपयिष्ठायेत् । एवं च जनपदचतुर्भागं खानिकः विभायेत् । गोपसानिक-खानेषु प्रदेशारः कार्यकरणं वलिप्रश्च च कुर्यात् ।—Bk. II, समाहतप्रचारः, pp. 141, 142.

² तेषु चैतावशातुर्वर्षमेतावदः कर्षक-गोरक्षक-वैदेशकावकर्म-

ants of all the four castes in each village; to count the cultivators, cowherds, merchants, artisans, slaves, the young and old men and women of each house, and ascertain their character (रूप), occupation (कर्म), income (आजीव) and expenditure (व्यय)¹; to number the biped and quadruped animals in each house, the taxpaying and non-taxpaying houses, and determine the amounts of gold, free labour, tolls and fines collected from each house.

The functions of the spies, besides their duties in connexion with land survey and revenue collection, were²—To number the total of inhabitants in each village, to number the houses and families in it, to ascertain the caste and profession of each family;

करदाशादेतावच इपदचतुष्पदमिदं चेष्ट हिरण्य-विष्टि-गृह्ण-
रचस्तमुच्चिहतीति ।

स्त्राचारा च करदाकरदस्त्रानेत ।

—Bk. II, समारर्त्तप्रचारः, p. 142.

¹ कुक्षाचारा च क्षीपुरक्षाचारा वाक्षादकर्मचर्त्वाजीववद्य परिमाणं विदात् ।—*Ibid.*

² समारर्त्तश्चिदाच गृहपतिकव्यस्त्राणा येषु भासेषु प्रशिदिता-
क्षेत्रा पामावा चेचरक्षकुक्षापं विद्युः । मानसस्त्राताभ्या चेचाशि,
भोगपरिहाराभ्या स्त्राचारि वर्ण-कर्मभ्या कुक्षाचिं च । तेषां
कुक्षापं वायवयी च विद्युः ।—*Ibid.*

to determine which house was tax-free; to determine the occupiers of houses; to ascertain the income and expenditure of each family; to count the number of domesticated animals (जड़पाण) of each house. It will be seen that these points of inquiry are in common with those of the village officers; over and above these, there were a few independent heads of inquiry,¹ viz. to find out the causes of emigration and immigration, to ascertain the number of men arriving and departing, and to watch the movements of men and women of suspicious character. It should be remarked that they had to perform the above duties under the guise of householders (मर्हपतिकवद्धमाः). Disguised as ascetics (नायसवद्धमाः), they watched the movement of cultivators, cowherds, merchants, and superintendents of Government departments.² Sometimes, also, under the guise of thieves (चोरवद्धम), the spies, with their followers, frequented places of pilgrimage,

¹ प्रक्षितामतानि च प्रवासादासकारचमन्यानि च सीमुखपादा चारप्रचारं च विद्युः ।—*Ibid.*

² एवं समाहतं प्रदिष्टासापसदवद्धमाः कर्त्तकगोरचकवैदेहकामास-धक्षादा च श्रोताशीर्च विद्युः ।—समहद्वप्रचारः, p. 148.

bathing-places, deserted tracts, mountains, ancient ruins, etc.,¹ to detect thieves, enemies and wicked persons.

The census of cities and the metropolis was the work of departments under officers called नागरक.² Every city had its नागरक, and was, like the province, divided into four quarters, each administered by an officer known as खानिक. Under him worked the minor officers called Gopas (गोप), who had to keep the account of ten, twenty, or forty households as the case might be. They had not only to ascertain the caste, *gotra*, name and occupation of both men and women of those households, but also to ascertain their income and expenditure. To minimize the difficulty of keeping account of travellers and other non-residents,³ managers of charitable institutions were required to send

¹ पुराण- चोरवस्त्रनाशानेवाचिनश्चेत्य- चतुर्पद्य- शूद्रव्यापदोद-
पात्र- नदी- निपानसीर्थायसनाश्रमारण- इत्यस्तमग्रहने पुस्तेनामिच-
प्रवीरपुरुषाणां च प्रवेशनस्तानगमनप्रथोजनान्युपस्थितेरन्—*Ibid.*

² समाहर्तृवद्वागरको नगरं चिकित्येत् । दशकुलीं गोपो, दिंश-
तिकुलीं चलार्तिंश्च कुलीं वा । स तस्या स्त्रीपुरुषाणां जाति-
गोचनामकर्म्मिः जाह्नापमायवयो च विद्यात् । एवं दुर्गचतुर्भागं
खानिकचिकित्येत् ।—Bk. II, नागरकप्रशिष्ठिः, pp. 148, 144.

³ धर्मावस्थिगः पाषाण्डि-परिकानावेद्यासयेयः ।—*Ibid.*, p. 144.

information to the census offices in case any such person arrived to reside therein.¹ Masters of households were also similarly required to send reports of the arrival and departure of strangers. If they failed to make such reports they were fined. Merchants, artisans, physicians, etc., had also, under the city rules, to make reports to the officer in charge of the capital regarding people violating the laws of commerce, sanitation, etc., for better management of the city affairs; but as these fall outside the scope of the census, we need not take note of them.

It has been already pointed out that the work of land survey was entrusted to those very officers who conducted the census operations. The duties of the officers in regard to land survey were mainly those of setting and fixing the boundaries of villages, classification and numbering of plots of land as cultivated and uncultivated, plain and upland, wet and dry, and so forth. An account was also kept of gardens and forests, temples and places of

¹ प्रस्तुतागती च निवेदयेत् । अन्यथा रात्रदोषं भजेत् । चेम-
राचिषु चिपक्षं दद्यात् ।—*Ibid.*

pilgrimage, feeding-houses, irrigation works, roads and crematories, storages for travellers, and pastures.¹ The supplementary body of officers or "overseers" had also to examine the accounts of this department regarding the fields, houses and families of such villages.

In conclusion, a few words should be said in regard to the scope and aims of the census operations in ancient India. The necessity of them appears to have rested on political as well as economic grounds. Politically, they were of great advantage to a Government like Chandra Gupta's, surrounded as he was by quite a number of independent hostile kingdoms. The census system kept him and his officers fully informed of those facts that were necessary for the security of the empire. We find it laid down as one of the duties of the census officials that they should watch the movements of suspicious people, of foreign spies, the emigration and immigration of men

¹ चीमावरोधेन प्राप्ताप्तं हाटाहाट-खालकेदारारामध्य-बाट-बम-
बाल्कु-चेत्यदेवम्भृ-सेतु वभम्भानस्त-प्रपातुष्मानविवीतपद्य-
सम्भानेन चेत्याप्तं; तेन चीमावरोधेन च मर्यादारप्त-पद्य-
प्रमाण सम्भानविक्रयानुप्रपरिचारनिभ्यान् कारयेत् ।

—समावर्त्तप्रचारः, p. 142.

and women of doubtful characters, and ascertain the causes thereof. These are facts of which an accurate knowledge is indispensable for the security of the State.

The census helped them politically in another way. We see in a passage, already quoted in another connexion,¹ that villages were classified not only as of first, middle, and lowest rank, but also as those that were free from taxation (परिचारक), those that supplied soldiers (आशुधीय), those that paid taxes in grains, cattle, gold, forest produce (कृष्ण), etc., and those that supplied free labour (विभे); so that the census was of help to Government by supplying information as to which villages formed the most convenient recruiting grounds for the imperial army.

Economically, the importance of the classification of villages and of the information as to the occupations of the people, their income and expenditure, etc., goes without saying, forming as it did a valuable aid to taxation and a most

¹ समाजसां चेष्ट-सध्यम-कविष्ठ-विभागेन पासार्थं परिचारक-
आशुधीय भाव्यपद्धतिरक्षुण्यविदिकरप्रतिकरमिदमेतावदिति
निष्पत्तेत् ।—(समाजसूत्रचारः) ।

reliable index to the material condition of the people.¹

¹ The *Encyclopaedia Britannica*, vol. v, p. 662 (New Edition), gives the following account of census operations of a few other countries in ancient times:—

"The fighting strength of the Children of Israel at the Exodus was ascertained by a count of all males of twenty years old and upwards, made by enumerators appointed for each clan. The Levites, who were exempted from military duties, were separately enumerated from the age of thirty upwards, and a similar process was ordained subsequently by Solomon, in order to distribute among them the functions assigned to the priestly body in connection with the Temple. The census unwillingly carried out by Joab at the behest of David related exclusively to the fighting men of the community, and the dire consequences ascribed to it were quoted in reprobation of such inquiries as late as the middle of the eighteenth century. It appears, too, that a register of the population of each clan was kept during the Babylonian Captivity, and its totals were published on their return to Jerusalem. In the Persian Empire there was apparently some method in force by which the resources of each province were ascertained for the purpose of fixing the tribute. In China, moreover, an enumeration of somewhat the same nature was an ancient institution in connection with the provincial revenues and military liabilities. In Egypt, Amasis had the occupation of each individual annually registered, nominally to aid the official supervision of morals by discouraging disreputable means of subsistence; and this ordinance, according to Herodotus, was introduced by Solon into the Athenian scheme of administration, where it developed later into an electoral record.

"It was in Rome, however, that the system from which the name of the inquiry is derived was first established upon a regular footing. The original census was ascribed to Servius Tullius, and in the constitution which goes by his name it was decreed that every fifth year the population should be enumerated along with the property of each family—land, live-

stock, slaves and freedmen. The main object was to ensure accurate division of the people into the six main classes and their respective centuries, which was based upon considerations of combined numbers and wealth. With the increase of the city the operation grew in importance, and was followed by an official *lustrum*, or purification sacrifice, offered on behalf of the people by the censors or functionaries in charge of the classification. Hence the name of *lustrum* came to denote the intercensal term, or a period of five years. The word *census*, too, came to mean the property qualification of the class, as well as the process of registering the resources of the individual. Later it was used in the sense of the imposition itself, in which it has survived in the contracted form of *cess*."

CHAPTER VIII.

THE COURTS OF JUSTICE.

IT goes without saying that the welfare of the people is determined to a considerable extent by the nature of the law of the land and the efficient administration of justice. Laws are unseen agencies as important for popular well-being as the visible agents of government. The object of this and the following chapters will be to consider in detail some of the laws of Chandra Gupta's Government, the way they were administered, and the contribution they made to the material welfare of the country.

There were two classes of law courts in the country, the धर्मकीय courts and the काव्यकाशोधन¹ courts—each differently constituted. There was also a difference in respect of the

¹ Literally, the courts for the removal of thorns (disturbances).

nature of the cases that came under their cognizance.

First, as to composition,¹ each धर्मस्थीय court² was made up of three persons well grounded in the Śāstras (*i.e.* धर्मस्थाः) or three ministers (धर्मात्माः) who sat together for hearing cases.

In each कष्टकाशोधन court, three धर्मात्मा's or three प्रदेशात्मा's sat to decide cases.

Next, as to the jurisdiction of the courts, a धर्मस्थीय court generally decided such cases as arose from the personal grievances of one or a few individuals against another or a few other individuals, and the punishments were only in fines, these fines being not very heavy. The cases that came within the jurisdiction of a कष्टकाशोधन court generally related either to matters that affected the Government, the king himself, the public at large and large bodies of men, or to such other heinous offences as murder. Though small fines were inflicted by this court for offences that were not so grave, yet the fines for the graver offences ranged up to a very high limit.

¹ *Vide* p. 147, अवधारसायना, and p. 200, काशकर्त्तव्यम्—Bk. III, Arthashastra.

² The text seems to be faulty: “वा” seems to be left out.

This distinguishes it from a धर्मस्त्रीय court. Another distinction consisted in the fact that it lay in the power of a कष्टकारोधन court to inflict capital punishment, with or without torture according to the gravity of the offences.

Below are given two lists of the kinds of cases that came under the cognizance of the two classes of law courts:—

I. The धर्मस्त्रीय court tried cases bearing on the following questions:—

- (i) Validity of contracts—व्यवहारस्थापना. (ii) Violation of contracts of service—समयस्थानपाकर्म. (iii) Relation between master and servant, employer and labourer—स्वाम्यधिकारः, भूतकाराधिकारः. (iv) Slavery—दासकर्म. (v) Recovery of debts—ऋणादानम्. (vi) Deposits—स्त्रीपत्रिधिकम्. (vii) Rescission of sale—विक्रीतप्रीतानुशयः. (viii) Resumption of gifts—दानस्थानपाकर्म. (ix) Robbery and violence—सावधम्. (x) Assault—दख्षपादश्यम्. (xi) Defamation—वाक्यपादश्यम्. (xii) Gambling—वृत्तसमाकर्यम्. (xiii) Sales of property by another than owner—प्रसामिविक्रयः. (xiv) Rights of ownership—स्वामिसम्बन्धः. (xv) Boundary disputes—सीमाविवादः, स्थानादानम्. (xvi) Construction of buildings—वासुकम्. (xvii) Sales of house property—वासुचिक्रयः. (xviii) Damage to agriculture, pasture and public roads—विवीतचेतपथ-हिंसा. (xix) Miscellaneous hindrances—वाधावधिकम्. (xx) Duties of man and wife—विवाहसंयुक्तम्, विवाहधर्मः, स्त्रीधर्मकर्यः, etc. (xxi) Partnerships—सम्युक्तसुधानम्. (xxii) Inheritance and succession—दायविभागः, दायक्रमः, etc. (xxiii) Miscellaneous offences—प्रकीर्णकानि. (xxiv) Rules of procedure—विवादप्रदिवनः.

II. The कार्यकार्यालय court tried cases relating to the following :—

(i) Protection of artisans—कार्यकार्यालयम्. (ii) Protection of merchants—वैदेशकार्यालयम्. (iii) Measures against national calamities—जपनियातप्रसोकारः. (iv) Suppression of the wicked—गूढाजीविना रक्षा. (v) Detection of criminals by ascetic spies—सिद्धायज्ञमैसामयकार्यालयम्. (vi) Arresting robbers on suspicion or in the act—सङ्कारपक्तमैभिपदः. (vii) Post-mortem examination—आत्मसंतकपरीक्षा. (viii) Cross-examination—वार्तकमौल्योगः. (ix) Discipline in Government departments—सर्वाधिकारार्थालयम्. (x) Fines in lieu of mutilation of limbs—रकाइवधनिक्षयः. (xi) Capital punishment with or without torture—शुद्धिविनायदपदकर्त्ता. (xii) Improper social intercourse—कन्याप्रकर्त्ता. (xiii) Punishments for miscellaneous offences—अतिकारदण्डः.

It should be noted¹ that over and above these courts, the head-man (पालिक) and the elders of a village (पालदारः) played an important part in the settlement of disputes among the villagers, and the former was vested with the power of summarily punishing certain offences. It appears from a passage that he could "deport" out of the village under his charge a thief or an adulterer if such a step became necessary.

¹ See वास्तविक्यापः, p. 169, Bk. III, and विवीतसंचयपर्याप्तिः, p. 171, Bk. III.

The king with his ministers and learned Brâhmaṇs formed the highest court of appeal.¹

Now, as to the seats of the above courts: they held their sittings in every चंपस्त्र, i.e. a town forming the headquarters of villages; in every दोषमुख, i.e. a town which was the headquarters of 400 villages; in every शान्तीय, i.e. a town being the headquarters of 800 villages; and in every जनपदचन्द्रि, i.e. a place centrally situated between any two provinces of the empire. It will thus be seen that the metropolis must have had courts of the above two classes besides the royal law court.²

¹ Bk. I, राजप्रशिदिः ।

² अवधारकापना and काष्ठकरचण्डम् ।—Bk. III; see also Bk. II, जनपदनिवेशः ।

CHAPTER IX.

LEGAL PROCEDURE.

IN the previous chapter the constitution of the law courts has been dealt with ; in the present, the laws themselves will be considered.

The four basal factors¹ that were taken into account in the administration of justice were : (1) Sacred laws or laws contained in the

¹ धर्म यवहार चरित्रं राजभासनम्.

(a) विवादार्थचतुर्पादः परिमः पूर्ववाधकः ।

च चतुर्वितो धर्मो यवहारसु चाचिषु

(b) चरित्रं चंपरे उंसा राजामाज्जा तु भासनम् ॥

—Bk. III, विवादपदनिवासः, p. 160.

That यवहार means here a contractual relation or a contract is indicated by passage (b). It says that धर्म is based on truth, यवहार on evidence, and राजभासन on the king's order, while custom is determined by large bodies of people. In fact, witnesses were essential to testify to contracts, which were mostly verbal in those days, and this favours the adoption of the above meaning. Besides, the word has been used in the above sense in Mann—VIII, 163, 164, 167; *vide* also the *Indian Wisdom* by Monier Williams, p. 268, where the word has been taken to mean contract.

Dharma Śāstras (धर्म), (2) contractual relations created by the parties (व्यवहार), (3) customary laws (संस्कार), and (4) statutory or king-made laws (राजसामान्).

In case of conflict between (1) and (2), or between (3) and (4), the former prevailed over the latter (परिमः पूर्ववाधकः); so that a contract could not transcend sacred law or a statute custom. Passages quoted below show, further, that a statute should also be in consonance with sacred law (धर्म), contract (व्यवहार) and equity (न्याय), and that in case of conflict between custom (संस्कार) and contract (व्यवहारिक) the injunctions of sacred law should be followed. It is also stated that in the event of conflict between statute and equity the statute became inoperative and nullified.¹

When a case came up for decision, the pre-

1 अनुशासित धर्मेण व्यवहारेण संख्या
न्यायेन च चतुर्थेन चतुरकां महीं जयेत् ।
संख्या धर्मसामेण शास्त्रं वा व्यवहारिकम्
यद्यित्तर्थे विवेत् धर्मेणार्थं विनिश्चयेत् ।
शास्त्रं विप्रतिपद्येत् धर्मन्यायेन केनचित्
न्यायस्त्रं प्रमाणं स्यात् पाठो हि नम्नति ।

—*Ibid.*, Bk. III, p. 150.

(Here अनुशासन् and शास्त्रं refer to राजसामान्, i.e. king-made law.)

liminary step taken was the registration of the following particulars regarding the suit:—

(i) The exact date (showing the year, season, month, fortnight and day); (ii) the nature of the offence, and (iii) the place of its occurrence; (iv) the amount of debt incurred, if any; (v) the country, village, caste, *gotra*, name and occupation of the plaintiff (पार्दी) and the defendant (प्रतिवादी), both of whom must be competent to sue; and (vi) the statements of the parties, which had to be thoroughly scrutinized by the court.

Each of the parties had to be on guard against the following kinds of the offence termed परोक्तदोष (paroktadosh):—

(1) Deviating from the question at issue and taking to another question; (2) contradicting the previous statement; (3) insisting on the need of consulting the opinion of a third person though his opinion be not worthy of such consideration; (4) breaking off while answering a question though ordered by the court to continue; (5) introducing questions other than those already specified; (6) withdrawing the statement already made; (7) not accepting what one's own witnesses have said;

and (8) holding secret conversation with the witnesses when it was not allowed.¹

Besides these,² there were other sorts of परोक्षदोष. The plaintiff had to make his rejoinders the very day the defendant had answered, for it was presumed that the plaintiff was ready to go on with the case; otherwise he was guilty of परोक्ष. But if the defendant was not ready for the case, he was allowed three or seven nights to prepare his defence. If he failed to make his defence within that time, he was punished with a fine ranging from three to twelve panas. If he could not answer even after three fortnights, he was guilty of परोक्ष, and the plaintiff could recover out of the defendant's property the amount sued for, unless he (plaintiff) agreed to accept in its stead some good service from the defendant. The same punishment was inflicted on the defendant who utterly failed in his defence. If the plaintiff failed to prove his case within the aforesaid time, he committed a परोक्ष. If he failed to substantiate his charge against a deceased person, he was made to

¹ Arthashastra, p. 149.

² *Ibid.*, pp. 149 and 150.

perform some of his funeral rites. If¹ he was not a Brâhmañ he might be ordered to perform the ceremonial रचोद्वरचितम्. The fine for परोळ generally was पचमम्. Making an assertion without any evidence to support it was another परोळदोष, the fine for which was दशमम्.²

In cases other than strife, violent and direct seizure of property and disputes among merchants, the defendant could not file a counter-cause against the plaintiff. Two suits against a defendant for the same offence were not allowed.³

We now proceed to consider the rules regarding witnesses. At the outset it is to be noticed that agents were attached to the law courts for secretly ascertaining if possible the

¹ This passage seems to be a little faulty, and the meaning of the next passage, "आधिं चा सकानं प्रवेष्येत्," is not clear.

² Vijnânesvar, in his Commentary on Jâjñavalkya II, v. 174, explains पचमम् as a fine equal to the fifth part of anything lost or stolen.

If in the light of this explanation, we take the meanings of पचमम् and दशमम् to be the fifth and tenth part of the amount sued for, we meet with difficulty in applying them to line 6, p. 176, Bk. III, अरादानम्, and line 6, p. 184, Bk. III, दावकर्षः।

³ अभियुक्तो न प्रत्यभियुक्तिं अस्य वक्षत्व-वाहस-सार्थ-सम-वायेभाः। न चाभियुक्तोभियोगीश्च।—p. 149.

real facts of a law-suit, and for reporting them to the judges.¹ How far the information they furnished would be followed in a particular case depended, of course, upon the discretion of the judges. They had to use their discretion with great caution, especially in cases like that instance in the passage quoted below,² where the depositions of witnesses were inconsistent and contradictory, and consequently in conflict with the statement of the plaintiff, and where there was a divergence of the report of the "informants" from both the statement of the plaintiff and the evidence.

The principal check upon the indiscretions of the judges was the punishment they incurred for their laches and iniquity. The report of the informants had to be utilized therefore with great care, and, with its chances of abuse minimized, it was meant to help the judges sometimes by creating suspicions in their minds which prompted them to sift the

¹ पूर्वोत्तराधीनात्मे साच्चिदनन्तव्यकारणे

चारहसात्र निष्पाते प्रदेष्टव्यः पराजयः ।

—Bk. III, विवादपदनिवासः, p. 151.

² *Ibid.*

evidence more cautiously, and sometimes by corroborating the conclusion pointed to by the statements of the witnesses.

We find from the *Arthashastra* that a suit was not dismissed on the ground that there were no witnesses forthcoming to testify to the question at issue. For instance, in disputes regarding the non-payment of the wages of a labourer, he could sue his employer even if he could procure no evidence to support his suit.¹ Such a procedure would appear strange, unless we bear in mind that over and above cross-examination of the parties and overt inquiry that could be availed of in such a case, there was another resource to fall back upon, viz. the secret agency for collecting information. Several such instances will occur to us as we proceed.

Let us now turn to other rules. In a law-suit three witnesses, either *approved by both the parties* (*चनुमताः*), *trustworthy* (*प्रात्यधिकाः*), or *pure* (*शूचयः*),² served the purpose best. In a

¹ Bk. III, दावकर्यः, p. 184.

² प्रात्यधिकाशूचयोऽनुमता वा चयोऽवराच्चाः । पचानुमती वा ही अस्ति प्रति न स्वेच्छः ॥—Bk. III, p. 175. अवादानम्, सात्यधिकारः । In view of the fact that even a suit with no

suit for debt, however, two *witnesses approved by the parties* might be sufficient, but never one.

The fact of relationship with the plaintiff or defendant affected the competence of a person as witness. The following persons were not eligible as witnesses, viz., (1) wife's brother (आच), (2) helpmate (सहाय), (3) prisoner (आचर), (4) creditor (घणिक), (5) debtor (भारणिक), (6) enemy (विरो), (7) dependent (नात्र), (8) convict (भूतदस्तः). In addition to these a few other persons could not appear as witnesses except in cases which affected their own people: (a) the king (राजा), (b) a person learned in the Vedas (शोचित), (c) the village poor (पासमृत), (d) lepers, etc. (कुष्ठि, प्रसी), (e) an outcast (परित), (f) a Chandāla (चण्डाल), (g) a person of mean avocation (कुसितकर्मी), (h) a dogmatist (चर्चावादी), (i) a female (स्त्री), and (j) a Government servant

evidence to support it could receive hearing, it seems inconsistent to translate "क्षोऽवरायाः" by "at least three witnesses." So it would perhaps be more reasonable to take "अवरायाः" in the sense of "serving the purpose best" (नात्र वरः यज्ञात् = अवरः).

प्राचिकाः and **प्रचयः**—It may be that they refer to two distinct classes of witnesses designated by the two names, the most marked attributes of a witness determining the class under which he falls.

(राजत्रुष्ण).¹ In cases of assault, etc. (पार्वत), theft (स्वेष) and rape (संपर्वत), persons other than the enemy, the wife's brother and the help-mate could bear witness. Any man or woman having secret knowledge of an underhand transaction could be a witness in regard thereto. The king and the ascetics (साधु) were exempted from this rule.

In case of a dispute between father and son, preceptor and pupil, or master and servant, the words of the superiors were given greater credence.

Witnesses had to take oaths to divulge the truth before Brâhmans, vessels of water and fire. There were set formulas, varying according to the castes of the witnesses, by which they were urged to speak the truth. A Brâhmaṇ witness was simply told "Speak thou the truth." The formula for a Kshatriya and a Vaiśya was: "Thou wilt not have fulfilment of thy ambition and wilt have to go a-begging to thy enemies with a skull in hand for a begging-bowl (if thou speak

¹ In this passage it is not clear who are indicated by the words "पूर्व च असदायाः," p. 175, Bk. III, अशादानम् (साम्यधिकारः) !

falsehood)." A Śūdra was exhorted thus: "All thy religious merit will go to thy king and all the sins of the king will come to thee (if thou utter a lie), and moreover, thou wilt be punished. Inquiry will be made as to what has been seen or heard."¹

If the witnesses made a concert among themselves and kept back the truth for more than a week, they were fined twelve panas. If they continued obstinate for more than three fortnights they were punished with the payment of the amount sued for.

When the witnesses gave divergent evidence, the judgment was passed upon the basis of the statements of the majority of pure (शूचयः) and approved (चनुसत्ताः) men among them. Or the judgment could follow a *via media*, if any such were suggested by the diverse statements of the witnesses. Failing these, the Government assumed possession of the article, if

¹ वास्तवोदकुप्राप्तिकारे साक्षिः परिमितीयात् । तत्र वास्तवं ब्रूयात्—“सत्यं ब्रूहीति”; राजन्यं वैश्यं वा “सा तदेषापूर्णकं कपालकलाप्तुवहं भिक्षार्थं गच्छे” रिति । शूद्रानाम् “मरणान्तरे यदः उप्पत्तिं तदानानं गच्छेत् । राज्यं किलिवं युग्मान् चन्यावादे दख्षामुष्मः । पश्चादपि जायेत यथाहृशुतम्” ।—Bk. III, वृषादामन, p. 178.

any, that formed the subject matter of the dispute.

If an amount were sued for and the witnesses deposed that only a part of the amount belonged to the plaintiff, then the rest of the amount had to be deposited with the Government. If, however, the witnesses testified to an amount greater in value than what was actually sued for, the excess went to the Government coffers.

Those witnesses who were easily accessible were called by the parties themselves; those who were far away or who would not come to court except under compulsion were served with summons (सामिवाक्य).

The defeated party had to bear the fees paid to the witnesses. They received a food allowance (उत्तमूनि) in which were taken into account eight items of food. What these items were is not known. Besides this allowance, they were given the necessary expenses for and during their journey.

A peculiarity of Hindu law courts in ancient times was that the judges had to pay a penalty for their iniquity. They were strictly enjoined to decide cases free from all circum-

vention, steady in all circumstances, impartially and diligently, thus winning the love and confidence of the people ; but if they were guilty of any laches, partiality or any such misconduct unworthy of a judge, they could not escape with impunity. This feature is also noticed in Chandra Gupta's law courts. If a judge threatened, rebuked, silenced or drove out a party to a suit, he was liable to the lowest amercement;¹ and for abusing a party, to a fine of double the amount. If he put irrelevant questions to a party, wilfully omitted to ask a pertinent question, did not note down what he heard in reply to his queries, tutored or provided a party with his previous statements, he was fined the middlemost amercement. If he inquired into unnecessary circumstances, caused delay by such inquiry, postponed work on flimsy pretexts, tired the parties out of court by his dilatoriness, misled them, helped the witnesses with clues, or resumed the work already disposed of, he was punished with the highest amercement. If he committed any of the offences a second

¹ For the three kinds of amercement, see Bk. III, चार्चम्, p. 192.

time, he was fined double the amount and dismissed.

For an unjust fine, a खर्च or प्रदेश was fined double the amount or eight times the excess of the amount over the prescribed limit, according to the nature of the offence. If a corporeal punishment were unjustly inflicted, he was condemned either to the same punishment or to the payment of twice the amount fixed in lieu of that kind of punishment. The judicial officer who brought to naught a good case or helped to concoct a false one was fined eight times its value.

The scribe who took down the statements of the parties was liable to the following punishments for negligence or misconduct. If he wilfully omitted to note what was said, noted down what was not said, left out what was badly said, or rendered diverse or ambiguous what was well said, he was liable to the first amercement or to any other punishment proportional to his guilt.

Care was taken to prevent the escape of a culprit from the law court (खर्चायीय), the *hajat* (चारक), or the prison (चन्दनागार), as

well as to prevent the abuse of the jailor's authority.¹

It is not clear who tried the judges for their misconduct. It seems most likely, and it is also consonant with the ancient Hindu law-codes, that the king or his associate judges tried them.²

Certain latitude seems to have been given to the superintendents of the several State departments to summarily dispose of certain kinds of offences committed by their subordinates. How far their power extended in this direction is not clearly defined, but it seems to have been confined to the offences done by the subordinates in their course of business.

¹ See Bk. IV, चार्याधिकरणरचनाम्, pp. 222, 223.

² See J. R. A. S., vol. li, p. 198—"On Hindu Courts of Justice."

CHAPTER X.

THE LAW OF CONTRACT.

§ 1.—GENERAL.

To understand the full significance of contract (ब्रह्मार) as it obtained over two thousand years ago, it is essential that we should free our minds from the modern associations of the institution.

We shall begin with a general statement of the requisites of a valid contract, and then follow out each of those requisites in detail.

A contract¹ was of course a two-sided

¹ (X) तत्पात् साचिमद्ब्रह्मं कुर्यात् सम्बिभावितम् ।

से परे वा जने कार्ये देशकालापवर्णनः ।

—Bk. III, औपनिधिकम्, p. 181.

(Y) से से तु वर्णे देशे काले च सकरणकाता
सम्भूर्बचाराम् भ्रातुर्देशा इष्टपत्नचर्य-प्रमाणगुणास् सम्भ
ब्रह्मारा स्मिधेयः ।
(परिमं लेपा करणमादेभाषिवजी त्रदेयुः)

—Bk. III, ब्रह्मारकापना, p. 148.

In (Y), सकरण may be taken to refer to the free exercise of

act, and the parties thereto could be both individuals as well as groups; *e.g.* a body of persons engaged in a common concern (समूह समुदाय) was entitled to be a party to a contract.

Secondly, a contract had to conform to the following restrictions, viz. (a) that the agreement between the parties should be

one's will, though a technical meaning (=document) may be attached to करण (vide Manu, VIII, 51, 52, 154).

I quote here Manu, VIII, 51:—

अर्थेऽपव्ययमानकु करणेन विभावितम् ।
दापयेदनिकसार्थं दण्डेश्वरं शक्तिः ॥

But whichever meaning is taken, the reference to the unfettered exercise of the will of the parties is apparent in both the cases. करण in the second sentence in (Y) seems to bear the meaning of "document." करण refers to the object or the सार्थ of the contract, and रूप to the circumstances under which a contract is made. This meaning of रूप (circumstances as opposed to the time and place of a contract) is found in Manu, VIII, 45—

सत्यमर्थं च सम्बोद्धामानसयं चाचिषः ।
देशं रूपं च कालं च यवद्वारविभी चितः ॥

प्रमाण=authority. It seems to refer to capacity of the parties, witnesses, etc. सम्बोद्धार refers to all the technicalities that are to be complied with. यवदेश, however, seems to be a needless repetition of what is implied by देश that goes before.

clearly expressed (स्पष्टिभाषित), (b) that it should not be made in secret (भृश), and (c) that it should be in the presence of witnesses (साक्षिमत्).

Thirdly, it should comply with certain conditions as to time (काल), place (देश) and वर्ग (i.e. caste, class, etc.).

Fourthly, the object (सज्ज) for which the contract was made and the circumstances (क्रम) attending it must be such as not to offend against law in any way; e.g. there must be no undue influence, etc. (भृशवृश).

Fifthly, the consideration (वेतन) must not be illegal and improper; the parties, witnesses and agents must be competent (प्रमाणमुद्युक्त). In short, the contract must conform to all the technicalities of law, i.e. it must be चम्पुर्णचार [see passages (x) and (y), f.n.].

The first requirements, as I have already stated, are that the agreement of the two parties should be expressed properly and that there must be no secrecy about it. Witnesses have to be called when a contract is formed. It appears that instruments (कर्तव्य) are used in contracts, and when the terms of a contract are entered on an instrument, the witnesses

can be dispensed with.¹ We find its parallel in some of the Sanhitâs. But witnesses were a necessity in oral contracts.² We find, however, an exception to this general rule. A suit was not dismissed on the ground that no witnesses were forthcoming to testify to a point at issue. In a dispute, for instance, regarding the non-payment of the wages of a labourer, the employer could be sued even if

¹ An analogy to this rule is found in Colebrooke's *Digest*, vol. i, p. 18, third edition, where the contract of loan is dealt with :—

"Brihaspati, quoted by Bhevadeva, Vâchaspati and Chandrasevar: A prudent lender should always deliver the thing, but, on receiving a pledge of adequate value either to be used by him or merely kept in his hands; or with a sufficient surety and either with a written agreement or before credible witnesses."

Yâjñavalkya, II, 91.—"But every document which is in the handwriting of the party himself is considered as sufficient evidence even without witnesses, unless obtained by force or fraud." For the passage of Manu on this point, see *supra*. For references to documents in contracts, see the passage (Y) quoted above; see also the last sentence, p. 170, अष्टादानम्, which runs thus: वासिष्ठादभियोग्यात् दुःखुम् दुर्दिक्षितं प्रेताभिनिवेद्यं वा समीक्ष्य साचिप्रत्ययमेव स्थात् ।

² It has been pointed out, while dealing with legal procedure, that three witnesses either approved by both parties (अनुमताः), trustworthy (प्रात्यक्षिकाः), or pure (मुच्यः) served the purpose best. In a suit for debt, however, two witnesses approved by the parties might be sufficient, but never one. For a parallel rule as to the number of witnesses, see Yâjñ., II, 69, 70; Mann, VIII, 60, 77.

the former could adduce no witnesses.¹ Other instances of this exception will be furnished by the class of contracts called निरोचित, to which we shall have occasion to turn presently. The presence of witnesses was repugnant to the object of a निरोचित contract; it was entered into in secret. A document may sometimes be used in such a case in lieu of witnesses, but sometimes there may be neither a document nor any witnesses.² Under such circumstances a dispute was decided by examination of the parties themselves, by a reference to any custom that might govern the transaction, by taking the opinion of experts (कृष्णाः), by utilizing other resources that the court commanded, *e.g.* the information given by the "agents" attached to the law courts, and by looking to some form essential to the transaction, *e.g.* the seal in the case of a sealed deposit. So we see that, as a general rule,

¹ दाष्टकस्यः, कर्मकरकस्यः । Bk. III, p. 184.

² Manu, VIII, 109 and 110 (S. B. E.)—"If two (parties) dispute about matters for which no witnesses are available, and the (judge) is unable to really ascertain the truth, he may cause it to be discovered even by an oath."

"Both by the great sages and the gods oaths have been taken for the purpose of (deciding doubtful) matters; and Basishtha even swore an oath before King (Sudasa), the son of Pijavana."

openness and publicity were required for the formation of a contract, which had to be entered into in the presence of witnesses. The absence of witnesses could be made up for by an instrument or otherwise.¹

Let us now turn to the restrictions as to time and place with which a contract had to comply. As a rule, the following contracts were void, viz. those that were (i) नक्षत्रात्, i.e. formed during night; (ii) अकारगारकात्,² entered into in the interior apartment of a house; (iii) अरण्यकात्, made in a forest; and (iv) उपहरकात्, formed in any other secret place.³ The object

¹ In this connection it should be noted that a person who overheard or saw a thing by stealth could be taken as a competent witness—रहस्य यद्यारेत्वेका भी पुरुष उपशोता उपहरादा वा चार्ची स्थान् राजतापश्यते ॥ p. 176—भास्यधिकारः. Other rules as to witnesses, that have been pointed out in connexion with legal procedure in general, apply also to contracts under proper circumstances.

² Manu takes note of the interior apartments of a house (अकारवेश) and of forests (अरण्य): Manu, VIII, 69. Kautilya also particularly mentions them. Yājñavalkya mentions both नक्षत्र and अकारगार contracts in Bk. II, 82.

³ तिरोऽहिताकारगार-नक्षत्रारण्योपध्युपकर-काराद्य अवहारान् प्रतिवेष्येयः । कर्तुः कारणितुय पूर्वस्त्रावस्त्रदण्डः । शोदशामेकं प्रत्यर्थदण्डः । वदेयानां तु द्रव्यवपनयः ।

Exceptions:—

(a) परोचेषाधिकर्त्त्वप्रदायमवकरा वा तिरोऽहितासिस्थेयः ।

of making these contracts void is, as already pointed out, that the law wanted to discourage clandestine contracts as far as possible. However, to remove possible hardship to particular classes of persons who might suffer by these rules, there were exceptions to the four rules. I shall speak of them here in the order of the above rules [*vide (c), (b), (d), and (f)*]:—

(i) Though all नक्तन contracts are void, yet those that have some connexion with or are made to ward off violence, attack and affray, those that are formed for doing anything connected with the celebration of marriage, as well as those made under orders of Government, were valid. The contracts made by the पूर्वराचयवरारिष्ठ also fall under

(b) दायनिकेषोपनिधि विवाहयुक्ता जीवामनिष्काहिनीत व्याधिताना चामूङ्संशानामनरगरक्षतासिस्थेयुः ।

(c) चाहयानुप्रवेश कल्प विवाह राजनियोगयुक्ताः पूर्वराचयवरारिष्ठ च राजिकतासिस्थेयुः ।

(d) सार्थकान्वम - व्याधचारार्था निष्परम्भचरायामरक्षतासिस्थेयुः ।

(e) गूढानीविषु चोपधिक्षताः सिस्थेयुः ।

(f) मिथस्समवाये चोपकरक्षताः सिस्थेयुः ।

अतोऽस्यानि सिस्थेयुः ।—Bk. III, वदचारकापना, pp. 147, 148.

this exception.¹ It will be seen that all the cases mentioned here are cases of great emergency. Unless the rule is a little relaxed in respect of people trying to defend themselves from assault, etc., the protection of their life and property would be an impossibility, and it

¹ The exceptions under (i) seem to contemplate such cases as this:—If A premises B to pay a certain sum of money in consideration of his informing a police officer of a burglary that is being committed in A's house, the contract cannot be impeached on the ground that it was made at night.

पूर्वरात्र व्यवहारिणः—**पूर्वरात्र** is the time from dusk to midnight. The use of the word in this sense occurs in Aitareya Brāhmaṇa, Kauśika Sūtra, Kātyāyana Śrauta-Sūtra, Mahābhārata, Pāṇini II, i, 45, commentary (see Monier Williams). Those who usually transact business during this time are therefore **पूर्वरात्रव्यवहारिणः**. But who exactly are meant is not clear. If we take the meaning to be any persons who enter into contract during **पूर्वरात्र** then an objection may be raised that if such a case had been contemplated some such sweeping rule as the following would not have been laid down, viz. that any गत्तात् contracts are void; the general rule could then well have been that all **पूर्वरात्रात्** contracts are void. Again, if all contracts be allowed up to midnight, why they cannot be allowed, say, a few minutes after midnight would be difficult to explain. Removal of secrecy about the contracts is the general policy, and therefore if all sorts of contracts are allowed during the first half of the night, they will offend against and for the time negative this policy. So it is most probable that only a limited set of persons is the object of consideration of the Government in this case, in view of the hardship that they will otherwise be put to, and therefore **पूर्वरात्र व्यवहारिणः** has most likely a technical meaning and refers to a limited group of persons.

is for the same reason, as well as for its own safety, that the State reserves to itself a full contractual freedom. Again, Hindu marriages are never celebrated before dusk, and sometimes the *lagna* (propitious moment) may shift so far into the night as to touch even its small hours; hence it is a necessity that contracts conditioned by such marriages should be sanctioned. As to the exemption relating to the class of persons last mentioned, there is some haziness as to who exactly are meant. The literal meaning of the word, viz. those who usually do their business during the first half of the night, does not carry us very far.

(ii) This exception shows some consideration to diseased *pardāh* women (पर्दाहिणीःस्त्रीयः). If in a sound state of mind, they can make valid contracts relating to दाय (division of property), निषेध (open deposit), उपनिषि (sealed deposit), and विवाह (marriage) in the inner apartments of the house, though the general rule is that अकर्मा contracts are void.

(iii) Exemption is given by the third exception to traders (साध्य), बणावस, i.e. cowherds, etc., hunters (आध्य), spies (चार), and those who have to roam in the forests fre-

quently (मध्येष्वरस्त्वात्). They can enter into valid contracts in the forest, though contracts by all others in that place are void.

(iv) The fourth exception relates to the उपकर contracts. उपकर, as will appear from the text, refers to any secret place other than the private apartments of a dwelling-house or a forest. The general rule is that any contract in any such secret place is void, the exception being in favour of partners in a concern (सिद्धस्वमवाय).

It should be noticed that in all the four excepted cases, the requirements as to witnesses, or in lieu of witnesses the requirements as to document, had to be complied with, though of course if a case occurs in which neither any witness nor any instrument is available, and which falls within any of the exceptions, it will stand on its own merits, and the judges may try such a suit if they find it possible to do so, or may dismiss it. Another point that should be noted is that if a person tries to make a contract which is void on any grounds, the proposer (कर्ता), the acceptor (अदेय), the witnesses (शोका), and the person who brings together the parties (कारयिता) are all fined.

Now we turn to the legality of the object

(सम्बन्ध) and consideration (वेतन) of a contract. The object and consideration must be legal, and be such as can be upheld by a law court according to equity and good conscience. In the case of a contract in which one party tries to take undue advantage of the other, the court will interfere in favour of the party who is at a disadvantage. A concrete example given in the *Arthaśāstra* will make it clear. If a person who is being carried away by flood, or is caught in a fire, or is in danger from wild animals, be rescued on his promise to give to his rescuer not only the whole of his property but also his sons, wife and himself as slaves, the proposer cannot be made to perform his promise, it being opposed to all justice and common sense, and therefore illegal.¹ The rescuer can realize only as much as is fixed by experts (कृष्णाः) appointed by the law courts. Similarly, in the instance given of a contract with a public woman, improper demand made by her from her paramour or *vice versa* cannot succeed; the court does not support any such

¹ Bk. III, p. 184,—दासकर्त्त्वः, कर्मकर्त्त्वः ॥ नदीवेगजाहाना-
सेनवाहोपर्वदं सर्वस्पूत्तदात्रात्मानेनार्थासारभाङ्ग्य निष्कीर्णः
कुम्हसप्रदिहं वेतनं दद्यात् । तेन सर्वं चार्थानामनुश्रया व्याख्याताः ॥

demand. Likewise, it will be seen from the passages already quoted that the general rule is that all अपरिकास, i.e. fraudulent contracts, are void, but an exception is made in favour of the spies appointed by Government. They can in their capacity as spies achieve their object by fraudulent contracts and are not penalized for the fraud they commit. It seems to me that cases like the following are contemplated by this rule: A spy, for instance, makes friends with a person whom he suspects to be a thief, and gradually insinuating himself into his confidence, proposes to buy the goods he has stolen. After taking possession of the stolen goods, the spy refuses to pay the value promised and puts the machinery of the law against him instead. In such a case the law court punishes the thief, but it cannot punish the spy as well for the fraud he has committed; neither can the thief bring a suit against the spy on the same ground. Thus the law softens its rigour and legalizes an evil to suppress a greater evil.¹

¹ E.g., Katyayana says: "If a bribe be promised for any purpose it shall by no means be given although the consideration be performed." (See Colebrooke's *Digest*, vol. i., p. 462, third edition.)

Now that the four kinds of valid contract, नक्षत्र, अन्तरगारदान, चरणदान and उपहरदान, which derive their validity on account of the exceptions laid down, have been dealt with, it is time that we should turn to the valid (तिरोहित) contracts. A place is तिरोहित if it be such that anything done there would be sheltered from human sight.¹ It therefore includes अन्तरगार, चरण as well as उपहर. Now let us look at the matter from another standpoint. Under cover of night a place may become तिरोहित, i.e. may be out of view on account of darkness. Therefore a तिरोहित place which is परोच्च has reference both to the nature and situation of the place as well as to time, e.g. night. The general rule is that contracts made in such a place are void, and the exception that attaches to this rule derives its validity from the objects in pursuance of which the contracts are formed. We shall consider the objects shortly, but before doing so, let us inquire whether the validation of a proper तिरोहित contract necessarily involves a

¹ परोच्चेष्वाधिकर्षपूर्वमवक्षयकरा वा तिरोहितादिस्मित्युः । Bk. III, p. 147. Here परोच्च explains तिरोहित. A तिरोहित place is one which is परोच्च, i.e. sheltered from human gaze.

deviation from the restriction that night vitiates all contracts. It seems that such a deviation takes place in this case. We see that two classes of objects are mentioned which can validate निरोक्त contracts, viz. (i) अधिकर्षणदद्यम्, i.e. contracting a heavy debt, and (ii) objects which are अवलम्बक, i.e. cannot be expressed and brought into others' notice owing to the delicacy attaching thereto. As to (i), it should be noticed that incurring a heavy debt detracts from the credit and reputation of the debtor and lowers him in the estimation of the people who come to know of it. Therefore, for the benefit of the debtors perhaps, such an exception has been made. Regarding (ii), a difficulty arises as to what kinds of delicate and secret matters are meant. Among the numerous instances furnished by the Arthashastra a valid contract between a woman of the town and her paramour seems to be, from its delicate nature, an instance in point.

We can well see that in a contract which involves a delicate matter, the contracting parties will rather seek the covert of night for the secrecy it can afford and shun by all

means the light of day. In view of this, it is in no wise strange that an express sanction is given to a deviation from the restriction as to night. It should further be stated here that a valid निरोक्षित contract also contravenes the general restrictions as to अन्तर्गत, उपर्याए and अत्य, for it has been already pointed out that निरोक्षित includes all the three places.

One word remains to be said to mark out more distinctly the difference between a निरोक्षित contract on one side and the three other contracts on the other. The principal difference lies in the objects of the contract, the objects of निरोक्षित contracts being secret and delicate. There are a few minor differences, which are apparent from the statements already made.

We shall next consider the restrictions as to the वर्ग of the witnesses [see passage (Y)].¹ The word वर्ग appears to be very comprehensive, and signifies everything that the expressions अपवर्त्तनः and से परे वा जने in passage (X) can imply. Kauṭilya does not explain clearly the restrictions, but they have to be interpreted in the light of what Manu and other

¹ The references here are to the two passages (X) and (Y) quoted in the foot-note at the beginning of this chapter.

such ancient lawgivers say on the point. In Manu the following rule is laid down, viz.—

“Women should give evidence for women, and twice-born men for twice-born men of the same kind, virtuous Śūdras for Śūdras, and men of the lowest caste for the lowest.”¹

The commentary of Medhātithi throws more light on this point. He says that “twice-born men of the same kind” means “twice-born men of the same caste, occupation, etc.” The line से परे वा जने कार्ये (कुर्यात्) अपवर्णतः² signifies that a Brāhmaṇ should choose a Brāhmaṇ for a witness, a Kshatriya a Kshatriya, and so forth ; and failing that, a person belonging to another वर्ण may be taken as witness. Therefore the two passages (x) and (y) lead to this conclusion that the contracting parties should try to make their contracts in the presence of castemen of the same sex and occupation as themselves in the first instance, failing which they can take witnesses belonging to the same caste and sex but having a different occupation, and when this also fails, men of a different वर्ण may be called.

Next we consider the rules about the capacity

¹ लोर्ण चाच्यं क्षियः कुर्याद्विजाना सहस्रा द्विजाः.

शूद्राच्च सनाः शूद्रानामन्यानामन्यथोनियः ।—Mann, VIII, 68.

² अपवर्णतः refers to the four वर्ण, viz. Brāhmaṇ, Kshatriya, Vaisya, and Śūdra. [See passage (Y) *supra*.]

of parties to make a valid contract. No contract can be made if any of the parties be (i) in a fit of anger (क्रुद्ध), (ii) under stress of extreme sorrow,¹ distress and danger (चार्ज), (iii) intoxicated (मज्ज), (iv) insane (जन्मत), or (v) under undue influence, duress, etc. (चपस्त्रीत).

Those who act in supersession of these bars are fined as already pointed out.

In connexion with the subject of contracts made through agents, of which I shall speak presently, a few terms occur which imply some other absolute disabilities so far as the principals are concerned.² चप्राप्रबवद्धार, for instance, indicates an age below which a person cannot make a valid contract on his own account; similarly, चतीतव्यवद्धार³ signifies

¹ In the case of an agreement with an चार्ज (man in distress), though no contract with him can hold good at law, yet we find that the law court makes him pay a sum fixed by experts (कुरस्ता) if he has already got any benefit from the other party. (See Arthashastra, Bk. III, p. 184, दासकर्षः.)

² चपाप्रबवद्धिष्य लता, पितृमता उच्चेष्य, पिता उच्चता, निष्कृतेन भावा, कनिष्ठेनाविभक्तोरेन, पतिमत्या उच्चत्या च लिता, दासाद्वितकाभ्यां, चप्राप्रतीतव्यवद्धाराभ्यां, चभिष्ठस्त्रप्रद-जितव्यवद्यवनिभिष्ठान्यवनिष्ठव्यवद्धारेभ्यः।

—Bk. III, व्यवद्धारस्त्रापना, p. 148.

³ चतीतव्यवद्धार literally signifies a person who has lost his capacity to contract in any way; but most probably a limit of age is meant.

another disability, due most probably to an age-limit beyond which a person is supposed to lose the amount of discretion that is necessary for making contracts on his own behalf, though he may act as an agent under the instructions of his principal, just as a minor can. Manu and others, however, make decrepit old age (अविरत) an absolute bar. It should also be noted that an ascetic (प्रसिद्ध), a person convicted (भिषज), one physically deformed (यज्ञ), or one passionately addicted to any kind of evil practice, e.g. drinking (वसनी), can, according to Kauṭilya, make contracts on behalf of principals authorizing them, but Kauṭilya does not clearly state whether they can also enter into contracts on their own behalf. Some of our ancient lawgivers, however, mention a few of the above conditions as nullifying contracts.

One other disability remains to be mentioned. A woman cannot have pecuniary dealings with a man or a woman with whom she is forbidden by law or by her superiors to do so.¹ If she

¹ See Bk. III, p. 156, विवाहसंयुक्ते—प्रतिषेधः.

Cf. Nārada to Indra in the *Harivansha*: "No man, O thou subduer of foes, should have pecuniary dealings with him from whom he desires much affection, nor visit his wife in his absence."—Colebrooke's *Digest*, vol. i, p. 16.

violates the prohibition she is punished. This rule applies also to a male.

We shall now consider the rules about the appointment of agents. The following persons, if authorized by the principals, can make contracts as agents:—

(i) Dependents, for the person who supports them, (ii) son, for the father, (iii) father, for the son, (iv) a brother, for another brother though not belonging to the same joint family, (v) a younger brother belonging to the same joint family, for an elder brother, (vi) a woman, for her husband or her son, (vii) a slave, for his master,¹ (viii) a minor (**चापास्तवद्वार**), for one who has attained majority and is otherwise competent to contract, (ix) a person who is **चतीतवद्वार** (see above), (x) a person convicted (**चमिष्क**), (xi) an ascetic (**प्रविनित**), (xii) a physically deformed person (**यज्ज**), and (xiii) one addicted to passion (**वरनी**).²

I shall now name here the principal transactions that bear the character of contract:

¹ For the meaning of **आदितक**, see Arthashastra, Bk. III, p. 182, **दासकर्त्त**:

² For the text, see *supra*. The text seems to be a little faulty in its first portion, and so I interpret it subject to some doubt.

(i) अवादानम् (loan), (ii) विक्रय (sale), (iii) निषेध (open deposit), (iv) अपनिधि (sealed deposit), (v) mortgage, pledge, etc., (vi) hire, (vii) partnership, (viii) contract of service, and (ix) a few other miscellaneous contracts.

From the above we have an idea of the elements that made up अवादान in Chandra Gupta's time. The elements that constituted a अवादान may well justify us in calling it a contract, though, of course, owing to the peculiar circumstances of the time in which it prevailed, it assumed a different complexion. We notice also that Government exercised a good deal of control over the details of the subject's life, and therefore legal interference touched spheres now looked upon as merely moral or social. A vagueness necessarily attaches to some of the details of अवादान, but on the whole we see its broad features and in them a generic likeness to a modern contract.

§ 2.—SALE AND PRE-EMPTION.

We have discussed the general principles underlying Hindu contract in Chandra Gupta's time, and shall proceed to discuss some

of the more important contractual transactions.

We begin with the sale of immoveable property. The first provision in regard to this is that the piece of property on sale has to be offered for purchase in the first instance to the kinsmen (जातिः) of the seller. If they do not propose to buy, then the property has to be offered to the neighbours, who can claim such right on the ground of vicinage or participation in the appendages (सामनाः); and on their refusal to purchase, the property is to be offered to the creditors of the seller (खनिकाः).¹ These rules evidently indicate that something like the right of pre-emption existed in those days. The texts concerning pre-emption are very few in Sanskrit legal literature, and even those that exist have been explained away by later commentators. I quote here Prof. Jolly's view on this point :—

"A trace of pre-emption in the Hindu law occurs in the text quoted in the *Mitakshara*² and other standard law books. It is

¹ जातिसामनधनिकाः क्रमेष्व भूमिपरिपक्षाभ्युक्तेतुमभ्यामवेयः ।

—Bk. III, वासुदिक्यः, *Arthashastra*, p. 168.

मरवासुकम्; वासु here means मरवं चेचमारामम् चेतुवन्धुकमाधारो वा, p. 166.

² Colebrooke's *Mitakshara*, chap. i, sect. i, 81.

as follows—'Transfers of landed property are effected by six formalities: by consent of fellow-villagers, kinsmen, neighbours and co-parcenere, and by gift of gold and water.' This text indicates clearly the existence in the early period of the Hindu law of a feeling that a transfer of landed property is not valid unless the neighbours, fellow-villagers and others who are not remotely concerned with it should have given their consent to its being effected. These persons might therefore be supposed, perhaps, to have been invested with a right of pre-emption. Whatever notions may have been prevalent on this subject in the early period of the Hindu law, this much is clear, that the compilers of those commentaries and digests of law on which the modern law is based did not approve of any sort of pre-emption. Thus the *Mitakshara*, in dealing with the above text, deprives it entirely of such legal significance as may have once belonged to it. The consent of fellow-villagers, according to the *Mitakshara*, is required for the publicity of the transaction merely; but the contract is not invalid without their consent. The consent of neighbours tends to obviate future disputes concerning boundaries. The consent of kinsmen and co-parcenere is indispensable when they are united in interest with the vendor. If they are separate from him, their consent is useful because it may obviate any future doubt as to whether they are separate or united, but the want of their consent does not invalidate the transaction. This interpretation of the *Mitakshara* may be viewed as an instance of the way in which the Indian commentators used to dispose of obsolete laws. At the same time, it shows clearly that anything approaching to pre-emption was entirely foreign to the ideas of such an eminent authority as *Vijhancevara*, the author of the *Mitakshara*.¹

A few other texts besides the one referred to above occur also in the *Mitakshara*. They are:—

¹ See also *Vivada Chintamani*, translated by P. C. Tagore, p. 309.

(1) "In regard to the immoveable estate, sale is not allowed ; it may be mortgaged by consent of parties interested."¹ This text, like the above, is also anonymous.

(2) The text of Bṛihaspati cited in the *Mitāksharā*, viz. "separated kinsmen, as those who are unseparated, are equal in respect of immoveables, for one has not power over the whole to make a gift, sale or mortgage."

The way in which these two texts have been explained away may be found by a reference to their respective sections in the *Mitāksharā*.

(3) In a passage in the *Mahānirvāṇa*² Tantra the rules of pre-emption are set out thus :—

"The proprietor of immoveable property having a neighbour competent to purchase it is not at liberty to sell such property to another. Among neighbours, he who is a relation or of the same tribe is preferred. In their default, a friend and the will of the seller prevails ; even though the price of immoveable property be agreed upon with another, yet if a neighbour pays the price, he is the purchaser and not another. If the neighbour be unable to pay the price or be consenting to the sale, the proprietor is then at liberty to sell it to another. O Goddess ! if immoveable property be sold in the absence of the neighbour, and he (the neighbour) pays the price immediately on hearing of the sale, he is competent to take it. But should the purchaser, having made houses or gardens, be in enjoyment of them, the neighbour is not entitled to take such immoveable property even by paying the price."

¹ Colebrooke's *Mitāksharā*, chap. i, sect. i, 82.

² महानिर्वाण, Slk. 107 ff., Macnaghten's translation.

The Tantras have never been recognized as authorities on law; neither have these rules been quoted in any current authentic law book. So they have failed to influence the practical law of the present day, and the net result is that, except in Behar and some other provinces of India, the right or custom of pre-emption is not recognized as prevailing among the Hindus; and in the districts where the custom has not been judicially noticed the custom has to be proved in each case.

It is generally inferred from the way in which the commentators explain, or rather explain away, the texts, that it was at the time of the Muhammadans that the right of pre-emption first came to be recognized among the Hindus. Such an inference cannot be supported if we read properly the mental attitude of the commentators. The later the legal authority, the more hostile is he to restraint on alienations of property. It cannot be denied that the rule, that a member of a joint family cannot sell his share in the joint property without the consent of his co-sharers, aimed at a result similar to that which the Muhammadan

law of pre-emption intends to achieve.¹ The provision that a field cannot be sold without the consent of the whole village in particular cases, or without the consent of the family, which certainly existed in ancient times, also points to the same conclusion.²

It is often argued that the absence of a Sanskrit name for pre-emption shows the absence of the custom. Such a position is absurd on the face of it, for what is described at length need not necessarily be named. Besides, in all the cases we have noted, the subject of pre-emption has been subsumed under a more general one which has given its name to the chapter, and so we do not find a Sanskrit equivalent.³

From the above it appears that the custom of pre-emption among the Hindus dates back to a much more ancient period than is generally supposed, and the advent of the Muhammadans

¹ The author of the *Dharmabhasya* sets aside the rule by saying that sales of undivided shares are immoral but valid in law.

² *Vide* E. W. Hopkins's *India Old and New*: Land Tenure in India.

³ The word प्रत्याप in *Manu*, VIII, 899, no doubt implies a right of first-purchase or pre-emption, as Monier Williams calls it, but it is claimed by Government, and in regard to moveables (भास्त्रानि); therefore it cannot be called pre-emption proper.

only marks a particular stage in its history. The passages in the *Arthaśāstra* serve only as evidence of a custom which is much older than the passage itself.¹

Having now seen how a piece of immoveable property was offered for purchase to certain classes of persons in preference to others in the days of Chandra Gupta, let us turn to further stages in the process by which the sale was effected.

The fact of the property being on sale has to be announced publicly in the presence of a large number of men who come from not less than forty neighbouring houses, and who have no personal interest in the sale.²

As immoveable property includes cultivated fields,³ gardens, enclosed spaces, tanks and reservoirs, each of these kinds of property, before being put to sale, has its boundaries

¹ *Vide* in this connexion Sivāraṇī's *Law of Pre-emption*.

² तसीत्ये वासासामन्तरिंश्चक्षुषा स्तवश्चतिमुखे वेष्य दावदेयुः । सामन्तप्राप्तदेव चेत्तमाराम् चेत्तुवन्म तदाकमाधारं वा मर्यादादु यथादेतुभागं “अनेनार्थं कः क्रेता” इति चिरादुपितवीतमव्याहरत् क्रेता क्रेतुम् समेत ।—वासविक्रयः, p. 168.

[For चेत्तुवन्म, see p. 60. पुष्पकल्पवाटपञ्चकेदारमूलवापाम्-चेतुः ।]

³ See f.n. above.

accurately defined in the presence of the neighbouring village-elders and elderly villagers (चामक्कपामटदेयु).

Then the crier (प्रतिक्रोदा) shouts thrice the following words: अनेनार्थं कः क्रेता, i.e. "Who will buy at this price?" thus announcing the price of the property fixed by the seller. The purchaser who accepts the price then enters upon the purchase if the sale be unconditional and not objected to by any claimant.

A tax is levied upon all such sales, and in the event of any increase of price owing to superior natural advantages, the unearned increment goes to the State.¹

The crier is responsible for the collection and payment of the tax on the sale.² Any fraudulent announcement of sale of property of which the seller is not the proprietor is punishable with a fine of 24 panas. No sale

¹ सर्ववायोर्बा भूस्थदर्भने भूस्थदर्भः सप्तात्का कोरं गच्छेत्
p. 168.

² विक्रयप्रतिक्रोदा शर्कं दद्यात् । असामिप्रतिक्रोदे चतुर्विं-
शतिपदो दसः । सप्तात्काद्युर्जमनभिदरतः प्रतिक्रुद्दो विक्री-
शीत । प्रतिक्रुद्दातिक्रमे वाक्यनि द्वितीयो दसः, अन्यत्र चतुर्विं-
शतिपदो दसः ।—*Ibid.*

can be kept in abeyance for more than a week, within which time the possession must be delivered to the buyer and the sale completed. If the purchaser is by fraud passed over and the property transferred to another, the irregularity is punishable with a fine of 200 panas. The punishment for other sorts of fraud is 24 panas.

The following restrictions in regard to the sale of immovable property are also to be noticed. Tax-payers (करदार) can sell their fields to tax-payers alone, and Brâhmins can sell their अपदेय or gifted lands to those Brâhmins only who are endowed with such lands. Violation of this rule is punishable with the first amercement. Neither can a tax-payer enter on a holding exempted from the payment of taxes. If a tax-payer enters on the holding of another tax-payer, he becomes the owner of the whole property except the house (भार) of the seller, unless it be given over by express agreement. If a non-taxpayer allows his land to lie fallow, another competent person may enjoy it for five years, after which he has to return the same to the owner after taking due compensation for the improvement made. The non-taxpayer

may live elsewhere, retaining the ownership of his land.¹

It may be noticed in passing that the period of prescription in respect of immoveable properties was usually twenty years, but it does not hold good in the case of the enjoyment of a piece of immoveable property by kinsmen, priests, or by heretics during political disturbances; neither does it apply in cases of mortgage.²

We shall now consider the rules regarding moveables. In the sale of moveables, no elaborate formalities are needed. It appears that in a sale of moveables, property passed by payment of price and delivery of possession.

A refusal to perform a contract of sale, or a refusal to sell an article put for sale by a dealer, was punished with a fine of 12 paṇas; but if the seller could prove any of the following three pleas he was exempted:—

(i) That the article in question has defects (दोष).

(ii) That it has been lost by अपनिपात, i.e. has

¹ विवीक्षेचपरिच्छा, p. 171, etc.

² स्वामिसम्बन्धः, p. 190 ff. Cf. Yājñ., II, 24, 25.

been stolen, or confiscated by the State, or destroyed by flood or fire.¹

(iii) That it has been found on examination to be unacceptable because it does not possess many of the properties originally imputed to it, or because it has been manufactured by diseased persons (कष्टिष्ठा).

(iv) Another excuse for non-performance of a contract of sale is that a fragile thing contracted for sale to a person cannot be retained longer without detriment to it, and so it has been sold to a third person.

The time allowed for rescission of sale is one night for traders, three for cultivators, and five for cowherds. With regard to the sale of the necessaries of life, however, a period of seven nights is allowed to people of all classes.

A person not accepting an article bought by him is fined 12 paṇas unless his case has any of the excusing grounds mentioned above.²

If diseased or unclean bipeds and quadrupeds are sold as healthy or clean, the seller is fined

¹ X&jū. uses the words पक्षदोष and राजदेवोपदान while speaking of non-delivery of sold articles.—II, 259.

² विज्ञीतक्षीतानुशयः, p. 187 ff.

12 panas.¹ The time for rescission of sale is three fortnights for quadrupeds, but as regards bipeds no time is expressly mentioned in the text. The rescission rule is applicable in the sale of slaves also, and a period of one year is allowed.

The principle followed in these rescissions is that the judges should try to effect them without detriment either to the seller or the buyer as far as possible.

As regards sale through agents (विद्यारथविक्रय),² the following rules are laid down. Agents selling the merchandise of wholesale dealers at prices prevailing at particular localities and times shall hand over to the wholesale dealers as much of the sale-proceeds and profit as is realized by them. If, owing to the default of the selling agents to sell at the proper place and at the proper time, there be a fall in the prices, the agents shall pay the value and profit at the rate which obtained when they received the merchandise. If, however, the wholesale dealers agree to remit the profits, the agreement

¹ *Ibid.* Cf. Manu, VIII, 222, 228, on Rescission of Sale.

² विद्यारथ-विक्रयः,—शीर्षनिधिकम्, p. 179.

will be carried into effect. In case of a fall in the price, the reduced sale-proceeds would be given to the wholesale dealers. If the agents represent that the goods have been destroyed or lost by उपनिपात (explained above) or in transmission (प्रेष), and if the representation appears reasonable¹ and trustworthy, and is not contradicted by any official report, then the value of the goods need not be made good to the wholesale dealers. The profit and value of the articles would be calculated after making due allowance for all the necessary wear and tear they undergo if they are sold at a distant future, or at a distant place. If the wholesale dealers are combined in a partnership, then each will take his own share of the value and profit or loss. The rest of the rules are to be supplied from those regarding deposit (उपनिषि).

Some of the following rules regarding the fraudulent sale of articles² are wide enough and can cover cases in which sale does not come in; but as all of them may also apply to cases

¹ सांव्यवहारिक—generally intelligible, i.e. reasonable.

² उपानिषिक्रमः, p. 189 ff.

where a sale is involved, they have been put here together.

On the detection of a lost article in the possession of a person, the owner will cause him to be arrested by the order of the judge of a court ; if, however, time or place does not permit this process, he can arrest the person himself and realize the article. The judge shall put this question : " How have you got the article ? " If he narrates how he got it, but cannot produce the seller, he will be acquitted, but will lose the article. If the seller is produced, he shall pay not only the value of the article but will also be liable for theft. If the seller runs away or hides himself with the article till it is wholly consumed, he shall not only pay its value but also be liable for theft.

After proving his title to the lost article, the owner shall be allowed to take possession of it ; but on failure to prove his title, he is to pay a fine of five times the value of the thing, and the State takes the article. If the owner takes possession of a lost article without obtaining permission of a court, he shall be punished with the first amercement.

Stolen or lost articles, on being detected by persons other than the owner, are to be deposited at घर्सन्धान, *i.e.* the place for the collection of tolls. If no claimant be forthcoming, such an article is taken by the State.

He who proves his title to a lost or stolen biped shall pay 5 panas as ransom (राज्यकाय) before taking possession. Likewise, the ransom for a single-hoofed animal (एकचुरस्य) is 4 panas; for a cow or a buffalo, 2 panas; for minor quadrupeds, $\frac{1}{4}$ pana; and for precious stones, etc., 5 per cent. of their value.¹

Whatever of the property of his own subjects the king brings from forests or countries of enemies, shall be handed over to its owner. Whatever of the property of his subjects stolen by thieves the king cannot recover, shall be made good by the State. If the king be unable to recover such a thing, he shall allow any person who volunteers to fetch it; otherwise, he shall pay an equivalent compensation to the sufferer.²

¹ Cf. Yājñ., II, 171-177.

² असामिकायः, p. 190. A parallel to the liability of the State for compensation to the injured party for loss of the sort mentioned above is to be found in Manu, VIII, 40; Yājñ., II, 87,

Ownership in properties continues though the owner is away from the place where they lie, but the owner who neglects to question the enjoyment of his moveables by another for ten years continuously loses his right therein. The aged and the minors, the diseased and the distressed, the sojourners abroad and those who have forsaken their country for good, are exempt from this rule. The exemption also applies to cases where the assertion of title is prevented by absence due to political disturbances, as also to open and sealed deposits, pledges, treasure-troves, women, boundaries, and articles belonging to the priests and the State.¹

§ 3.—LOANS.

We shall now discuss the subject of loans. The rules regulating loans are justly recognized to be of great importance, for on them depends

275; and Nārada, II, 17. It is interesting to note that a similar provision has also been incorporated in the Manu-Kyay-Damathat of the Burmese law: "If cattle have been stolen, the inhabitants of that district were held liable to which the footmarks of the stolen cattle are traced."—Richardson's *Tranl.*, IV, 8, p. 117.

¹ असामिकाच, सासामिकाच, p. 190 ff. Cf. Manu, VIII, 145-149.

to a large extent the economic welfare of the country, राजन्ययोगद्वेष as Kauṭilya puts it.¹

In those olden days the exploitation by the grinding money-lenders of the necessities of the poor and the needy was checked by a fair rate of interest. The fair rate was determined by the State, which punished all deviations from it.

The legal rate² of interest for a money-lender, as mentioned in the *Arthaśāstra*, is $1\frac{1}{4}$ p.c. per

¹ राजादानम्, Bk. III, p. 174.

² This rate of interest, viz. $1\frac{1}{4}$ p.c. per month, is also found in the *Saṃhitās*. The question is whether it was charged on a secured debt or not. *Vyāsa* is very explicit on this point. He says: "Monthly interest is declared to be an eightieth part of the principal, if a pledge be given; an eighth part is added if there be only a surety; and if there be neither pledge nor surety, two in the hundred may be taken from a debtor of the sacerdotal class" (see Cole's *Digest*, i, 80). *Yājñavalkya* also makes $1\frac{1}{4}$ p.c. per month the interest on a secured loan, for he enjoins that "on a secured loan the interest every month is one-eightieth part of the principal" (II, 88, M. N. Dutt's ed.). *Manu*, *Vaishīṣṭha* and *Nārada* are at one on this point. "A money-lender may stipulate, as an increase of his capital, for the interest allowed by *Vaishīṣṭha*, and take monthly the eightieth part of a hundred" (*Manu*, VIII, 140, S. B. E.). According to the commentators *Kālī*, *Nār.*, *Ragh.*, and *Nand.*, the rule refers to a secured debt, but *Med.* and *Gov.* think that the rule refers to cases where the creditor is able to live on this interest and is not compelled to take a higher rate for his living. However, the former is the view accepted on all hands, supported as it is by the parallel passages of *Yājñ.*, etc. (see also Cole's *Digest*, i, 24). *Vaishīṣṭha*'s text runs thus: "Hear the interest for a money-lender declared by the words of *Vaishīṣṭha*: 5 ināshas for

month, i.e. 15 p.c. per year. For the reasons given below, it seems that this rate of interest was chargeable on secured debts, the maximum rate allowed on unsecured ones being prescribed

20 kārshāpanas may be taken every month; thus the law is not violated" (II, 51, p. 16, S. B. E.). One kārshāpāna being equal to 20 māshas, the rate is 1½ p.o. per mensem. Nārada also refers to Vāishīṣṭha: "Let a money-lender take in addition to the principal the interest fixed by Vāishīṣṭha, viz. an eightieth part of a hundred in every month" (I, 99, S. B. E.). Brihaspati prescribes an eightieth part of the principal to be the interest on it every month (XI, 3, S. B. E.), while Gautama says: "The legal interest for money lent is at the rate of 5 māshas for 20 kārshāpanas per month" (XII, 29, S. B. E.). On the strength of the other Saṅhitās, these two passages would no doubt be taken to relate to the case of secured loans. Baudhāyana, however, differs from all the above authorities by prescribing a different rate of interest, viz. 1 p.c. per month. His rule is that "a sum of 25 kārshāpanas shall bear an interest of 5 māshas per mensem" [I, 5, 10—(22), S. B. E.]. He does not expressly apply it to cases of secured debts; but even if it be taken to apply to unsecured loans, the difference from the other Saṅhitās does not cease; for almost all the authorities quoted above, including Viṣṇu and Hārīta, expressly mention that the creditor may take 2, 8, 4 and 5 p.o. (and not more) as monthly interest on unsecured loans according to the order of the castes, e.g., a Brāhmaṇa debtor has to pay 2 p.o. per month, a Kshatriya debtor 8 p.o. per month, and so on. So Baudhāyana is the only dissentient authority in regard to this point.

In view of the general correspondence of the Saṅhitās as to the rule that 1½ p.o. per month is the interest to be charged on a secured loan, I am inclined to take the passage in Kautilya, "सपादप्ता धन्यो मारुद्देहः परम्पराः," as applicable to secured loans. This view gains further support when we take into account the fact that no separate rates of interest are

by the next passage as 5 p.c. per month. But the rate is allowed to increase in view of the risks to which the investment of the money lent, and consequently its realization,

mentioned in connexion with the rules regarding pledges, upon one kind of which, viz. where the thing pledged is used by the pledgee, interests are chargeable; nor are they mentioned in regard to rules about mortgages.

The rate of interest allowed by the *Sanhitas* in the case of the *Shudra* debtors, viz. 5 p.c. per month, corresponds with that given in the second passage of the *Arthashastra* (अर्थाशास्त्रम्, p. 174, Bk. III): "प्रत्यपदा आवक्षारकी"; and as the *Sanhitas* apply the rule to unsecured loans, I am inclined to think that the passage of *Kauśilya* mentions the maximum rate allowed in the case of unsecured loans.

Laws restricting the maximum rate of interest are found in many countries both of ancient and mediæval times. In Greece, "the *Seisachthira* of Solon (B.C. 594), according to some ancient writers, included a reduction of the rate of interest, stated by Plutarch to have been about 16 p.c. per annum. In the opinion of Grotius, however, no restriction was put by it upon interest. At Coreysa, in the second and third centuries B.C., loans on good security commanded 24 p.c., while the common rate at Athens in the time of the *Orators* was 12 to 18 p.c. . . . Such high rates were exceedingly oppressive to agriculturists, whose fortunes are always precarious" (Palgrave's *Diet. of Pol. Ec.*).

According to the same authority, "the ancient law of Rome allowed interest which, as usual in agricultural communities, reached an exorbitant height, and popular suffering necessitated a readjustment of debts. The law of the Twelve Tables (B.C. 451-450) first, according to Tacitus, limited the rate to one-twelfth part of the capital . . . In B.C. 347 interest was fixed at 5 p.o.; in B.C. 342 it was abolished altogether by the *Lex Gennelia*. Although the prohibition of interest long remained law, it was found impracticable . . . The *Lex Unciaria* of the

are exposed. Accordingly, the money borrowed by persons going to forests for trade is allowed to return an interest of 10 p.c. per month, while, on the same principle, the interest payable by the merchants who trade by sea is allowed to mount up to the maximum rate of 20 p.c. per mensem.¹

A disregard of the maximum limits is punished with fines payable not only by the money-lender and the intermediary, but also by the witnesses to the transaction.²

Consuls Sulla and Rufus fixed the rate of interest at 12 p.c. per annum . . . By a decree of the Senate in B.C. 50 this became the legal limit throughout the Roman provinces."

Diodorus the Sicilian, who visited Egypt in the middle of the first century B.C., gives us some information about the early Egyptian law on this point: "For those that lent money by contract in writing, it was not lawful to take usury above what would double the stock, and that payment should be made only out of the debtor's goods, but his body was not to be liable in any wise to imprisonment; and those were counted the debtor's goods which he had either earned by his labour, or had been bestowed upon him by the just proprietors." (Diodorus, vol. i, Bk. I, ch. vi, p. 81: transl. by C. Booth.)

¹ "दृश्यपदा कालारकाशा." Xajñ. uses the word कालारग in a similar context—

कालारगात् दृश्यं सामुद्रा विश्वकं शतम्

दृश्यां सहस्रा दृश्यं सर्वे सर्वात् जातिशु—II, 89.

² ततः परं कर्तुः कारणितुष्ठ पूर्वस्साहस्रदृशः । शोतुषामे-
कैकं प्रत्यर्थदृशः ।

The interest on grain in seasons of good harvest shall not exceed more than half its quantity when valued in money; that on the capital contributed by the members of a commercial company shall be one-half of the profit and be payable as each year expires. In case of partners who by long absence or by maladies such as idiocy are disabled from participation in the business, they may be discharged from partnership by being paid twice the amount of their original capital.¹

A person claiming interest when it is not due, or claiming as principal the sum-total of the real principal and interest, shall pay a fine of four times the amount under dispute. False claims were punishable with fines of four times the amount falsified. If both the debtor and the creditor mis-state their claims, the punishment is divided between them in the proportion of 1 : 3.

The following persons were exempted from

¹ The text is चिरप्रवासं साम्प्रविदो वा मूलद्विगुणं दद्यात् । p. 174. It seems that “साम्प्रविदः” should be “साम्प्रविष्टः.” In “वाचस्पत्य,” “साम्प्र” has been explained as “जाता,” by which no doubt such maladies as insanity, idiocy, etc., are meant. One suffering from these would be साम्प्रविष्टः.

payment of interest: (i) persons engaged in long-continued sacrifices, probably in view of the general good believed to have been produced thereby; (ii) the diseased; (iii) those detained in the house of their preceptor for studies; (iv) minors; and (v) the indigent.

The repayment of debts is also subject to the following rules.¹ The creditor is fined 12 *panas* if he refuses to accept in proper time the sum due, unless the refusal be founded upon some adequate grounds. Moreover, in case of refusal, the sum tendered may be deposited by the debtor with some third person, and no interest accrues upon it for the time subsequent to the date of deposit.

The creditor is liable to a penalty for want of diligence on his part to realize his money within ten years next following the due date; for after this period the loan is barred by limitation. But exceptions are made in favour of (i) the senile, (ii) the diseased, (iii) the dis-

¹ Cf. *Yājñ.*, II, 45: "If a creditor, for the multiplication of his own money, does not take it when offered back by the debtor, and if the latter deposits it with an umpire, interest ceases from that date."

tressed, (iv) minors, (v) sojourners in other countries, (vi) persons who have forsaken their country (रेपत्यागी), and (vii) those who are prevented from claiming their dues owing to political or other disturbances.

The sons of a deceased debtor shall repay the principal with the interest thereon. If the deceased have no sons, the debts shall be paid by those who inherit his property; or the debt shall be paid by the surviving joint-debtors if it were contracted jointly with them.¹ Where there are sureties for payment, they shall be held liable.

The rules as to surety for payment of a debt are: A minor cannot stand as surety. If there be no restrictions in the contract of surety as to time or place, it shall be borne by the sons, grandsons, or any persons inheriting the property of the deceased surety in case the debt be not paid by the debtor. They have also to bear the liability of the deceased person as surety in regard

¹ प्रेतस्य युजाः कुरुते इत्युः । दावादा वा रिक्षव्यराः सर्वपा-
चिष्ठः प्रतिशुभो वा ।

Of. Yajñ., II, 51, 52; Vishnu, VI, 27, 28 ff.; Manu, VIII, 166; Narada, I, 2 ff.; and Brihaspati, XI, 48 ff.

to (i) personal services, (ii) marriage-dowry, and (iii) transactions concerning immoveable property.

When there are several debts owing by a single person to several creditors, two creditors cannot sue the debtor simultaneously except in the case of resistance by the debtor,¹ and in the suit the order of the debts has to be proved before the court.

No suit for debt can lie between husband and wife, father and son, and brothers of undivided interests. Cultivators and Government servants cannot be apprehended during working hours for debts contracted by them. The wife is not as a rule liable for the debt of her husband even if it be acknowledged by her, except in the case of debts due to herdsmen and cultivators.²

A husband is liable for the debt of his wife, and if he absconds without making any provision for the debt, he shall be fined with the

¹ प्रतिष्ठमान—resisting. (Monier Williams.)

² The meaning of this exception is to safeguard the interests of these useful occupations for the benefit of the public.

The text has अर्द्धसीति. Yājñ. uses the word अर्द्धसीर्वत् (I, 168) in the sense of "a cultivator who takes half the crop for his labour."

highest amercement. If he denies the debt, witnesses are depended upon.¹

§ 4.—DEPOSIT, ETC.

The next item for our consideration in connexion with contract is the law relating to deposits.

There were two kinds of deposit, viz.:—

- (i) Sealed (अपनिषिद्धि) and
- (ii) Open (निषेध).

A *sealed deposit*, according to Yājñavalkya, is an article enclosed in a box under seal which the owner delivers into the hands of the depositary without saying anything as to its nature.² An *open deposit* is not put under any cover, and the nature, quality, form, etc., of the

¹ In the Sāghitas, e.g. in Yājñ., II, 47 and 49; Nārada, I, 18, 19; Brīhaspati XI, 50, 53; and Viṣṇu, VI, 82, 87, the husband is not as a rule liable for the debt of his wife unless it be contracted for the benefit of the family. Among herdsmen, wasbormen, bunters, distillers of spirit, etc., the husband is invariably liable for the wife's debt, because "the income of these men depends on their wives, and the household expenses are borne by them also."

² Yājñ., II, 68 (M. N. Dutt's ed.); also Nārada, II, 5 (S. B. E.). Brīhaspati, XII, 8 (S. B. E.), runs thus: "When a chattel enclosed in a cover and marked with a seal is deposited without describing its nature or quantity and without showing it, it is termed an *aupanidhika* deposit."

The commentary (in Colebrooke, i, 272) on Nārada cited in

article deposited are known to the depositary at the time of making the deposit.

The rules as to sealed deposits apply *mutatis mutandis* to open deposits, and *vice versa*.

The acceptance of deposit is gratuitous, but the depositary is responsible for its safe custody. If he puts it to his own use, he has to pay a compensation (भोगवेसन) fixed according to the circumstances of the case, in addition to a fine of 12 paṇas. If use by the depositary or his carelessness diminishes the value of the article deposited, the loss has to be made good and the fine doubled. If it be either pledged, sold or wasted by him, a fine¹ is imposed ; if exchanged

the Mitakshara should be noticed: " 'NArada cited in the Mitakshara': When a thing is deposited under seal, without mentioning its quantity, if its kind and form be unknown, it is considered an *upanidhi*; but the wise call a specified deposit *nikshepa*.

" 'If its kind and form be unknown': if the depositary know not whether it be gold or silver or what. 'Under seal': secured by a private knot to prevent its being taken by another person, or secured by the impression of a seal on which particular letters are engraved; when a thing is so deposited, the bailment of it is *upanidhi*. A specified deposit (or the bailment of a thing of which the quantity, kind and form are mentioned) the wise call *nikshepa*."

¹ The fine is चतुर्गुणपद्धत्य. I have already pointed out the difficulty of giving a meaning to पद्धत्य consistent with its use in other passages, e.g. that at p. 176, Arthashastra.

or wilfully destroyed, its value is realized from the depositary. He is, however, exempted from liability if the deposit is lost, destroyed or damaged through no laches on his part, e.g.¹ by the ravages of hostile kings, wild tribes, or other invaders; by *vis major* such as flood or fire; or, during transit at sea, by the ship sinking or being plundered by pirates.

The deposit must always be returned to the actual depositor; otherwise the depositary is answerable.² If the depositary denies having received the deposit, the antecedent circum-

¹ प्रेसवसनगमं वा नोपनिधिमध्याभवेत् । (p. 178, *ibid.*). This passage most probably contemplates the destruction of the deposit along with the property of the depositary, in which case neither the deposit nor compensation can be demanded from him by the depositor. This meaning of the passage enables us to distinguish the case from those of destruction of the deposit by *vis major*, etc., at p. 177, which also excuse the depositary from all liability. The interpretation of the passage, viz. "When the depositary is either dead or involved in calamities, the deposit shall not be sued for," is opposed to all reason and justice; for, should not the heirs who get possession of the deposit along with other articles of the deceased, or the depositary himself though involved in calamity, be held responsible for the return of the deposit?

For a parallel to the meaning that seems to me more reasonable, *vide* Náraṇa as quoted in Colebrooke, i, 282: "What is lost together with the property of the bailee is lost to the bailor; so if it be lost by the act of God or of the king, unless there was a fraudulent act on the part of the depositary."

² Cf. Manu, VIII, 185.

stances are examined; moreover, Kauṭilya by way of example mentions a few dodges which are employed in such cases to find out the truth, and which are similar to those enjoined by Manu. These artifices are meant for the protection of unwary people against the wiles of dishonest depositaries. The artisans, says Kauṭilya, are a class of this sort. They are very clumsy and incautious in their dealings, and make deposits without any evidence, documentary or otherwise. It is for such people specially that the aforesaid procedure is meant. Manu prescribes that "on failure of witnesses, let the judge actually deposit gold with the defendant under some pretext or other, through spies of suitable age and appearance, and afterwards demand it back. If the defendant restore it in the manner and shape in which it was bailed, there is nothing of that description in his hands for which others accuse him. But if he restore not that gold, as he ought, to those spies, then he shall be compelled by force to restore both the deposits."¹ The honesty of the bailee in the second transaction is taken as an index of his integrity in

¹ Manu, VIII, 182-184.

the first. This is the key to the various means mentioned by Kauṭilya for testing the honesty of the bailee. When a defendant denies having received an open deposit, for which there is no evidence, the plaintiff, with the sanction of the judge, takes a few men to the house of the depositary, stations them in a secret part of the house, but within hearing, and then goes to the bailee as if alone; and in the course of conversation with him tries to make him say the truth. The plaintiff may very likely succeed in the attempt, for the bailee does not know that he is being overheard by other people who will bear witness against him. If he unwarily says anything that may favour the plaintiff in his claim, the judge uses it when deposed to by the witnesses.

Another method used to elicit the truth is to employ a spy, who, in the guise of an old, diseased merchant, appears before the defendant depositary as if after a long journey through a forest, or in the middle of his professional tour, and seeks as a measure of relief to leave with him his chattels secretly marked. After some time he sends his brother or son to take back the articles. If they are re-

turned quietly, the bailee proves himself honest; if not returned, he is found guilty in this as well as in the previous transaction and visited with the punishment prescribed for theft.

A third trick employed for the same purpose is that of a spy, in the guise of a respectable gentleman bent on renouncing the world, leaving an article in the hands of the defendant bailee. After a while he returns and claims it. If it is not returned, the bailee is punished as above.

Similarly, a spy may pretend to be a simpleton, and at night represent to the defendant bailee that for fear of being arrested on suspicion by a police officer for carrying an article through the streets, he wishes to leave it with him. Accordingly, he leaves it in his custody. But, in spite of this precaution, a police officer (who seems also to be employed to help him in this artifice) arrests him and puts him in *hâjat*, whence he demands the deposit back. If the bailee restores it, well and good; otherwise, he is punished.

In these cases the chain of transactions by which the article in dispute passed into the

defendant's possession, the validity of those transactions, and the social and financial position of the plaintiff are carefully examined.

These artifices, it seems, were more frequently needed for cases of open deposit than for those of sealed deposit, the reason being that open deposits were often made in a hurry, the depositor having hardly any time or opportunity for taking precautions as to witnesses, etc.¹

Pledge (प्राप्ति).

Kauṭilya does not expressly mention the rules to be followed when the article pledged is used, sold, pledged, lost or misappropriated, but leaves them to be inferred from the allied rules laid down in connexion with deposit. If the pledge be coupled with the condition that it will be used by the pledgee, then the pledgor can release it at any time he likes, and no interest is charged. In other cases the time is limited, and the interest accrues due

¹ The materials for this part of the section have been drawn from Bk. III, pp. 177, 178, 180, 181, except where otherwise indicated.

for the period. A pledgee who refuses to return the pledge when duly demanded back by the pledgor is fined 12 paṇas. If the latter goes to release the pledge at a time when the former is away from home, he can redeem it by paying the money to the elders of the village;¹ or the then value of the pledge being ascertained, it may be left where it is, and interest ceases to accumulate.² If there be an apprehension that the pledge may depreciate, it may be sold, with the permission of the court, in the presence of the superintendents of pledges (**चाष्पाल**), or of special Government officers (for whom, see *infra*³), or in the presence of the pledgor alone.

Mortgage.

A piece of mortgaged immoveable property may be of two kinds, viz. (i) yielding income without any labour, (ii) yielding income after labour being spent on it. When the money lent, as well as its interest, has been realized

¹ *Cf.* *Yājñ.*, II, 88.

² *Yājñ.*, II, 64.

³ **चाष्पालविनाशकरणाः**, lit. officers who provided against loss or destruction.

from the income of the mortgaged property, it shall be returned to the mortgagor with its value undiminished. If the mortgagee enjoys the mortgaged property without the sanction of the mortgagor, then it shall be returned with compensation for such enjoyment, after the capital lent is realized.¹

The rest of the incidents of mortgage are like those of deposit, with the necessary modifications. As regards the mortgage of lands, the restriction is that the revenue-paying lands can be mortgaged only to holders of such lands, and Brahmadeya (*i.e.* given away to Brāhmaṇas) lands only to owners of similar lands.²

Ādesa (bill of exchange), etc.

Two other forms of contract next engage our attention, viz. *Ādesa* (आदेस) and *Anvādhi* (आन्वाद्धि). An *ādesa* is literally an order, and it seems to mean an order to a third person to pay up a sum of money on behalf of the sender of the order. It is akin to a modern bill of exchange in its simplest form. *Anvādhi* is, as

¹ Cf. Yajñ., II, 68, p. 178, Arthashastra.

² Bk. III, p. 171.

Kâtyâyana puts it, "a bailment for delivery."¹ Its incidents, according to Kauṭilya, are as follows:—If a person entrusted by a merchant with an article for delivery to a third person does not reach the destined place, is robbed on the way by thieves, breaks the article or abandons it, the merchant shall not be responsible; nor the kinsmen of the carrier if he dies on the way. Kauṭilya does not expressly mention other incidents of these two forms of contract, but leaves them to be inferred from those of deposit.

In loan for use (पार्वतक)² and hire (प्रब्रह्मतक), the article which forms the subject of the transaction has to be returned to the owner in the state in which it was received; but if it be lost or destroyed by lapse of time, by flood, fire or rough transit, by being confiscated by the State or stolen by thieves, it need not be made good.³

¹ Colebrooke, vol. i, p. 278. "Kâtyâyana: 'When a thing is bailed with these directions, viz. deliver this, as by my desire, to such a man when he shall demand it for his own business, it is called *anvâddhi*.'"

² *Vide* Colebrooke, vol. i, p. 278; for fine prescribed for not returning article hired or borrowed, *vide* Bk. III, p. 198, Arthâśâstra.

³ Bk. III, Arthâśâstra, p. 198, adds: "When a person does not return at the required time or place the property that has been hired or borrowed, pledged or deposited, he is fined 12 paṇas."

The rules of *open deposit* apply to these two forms of contract as far as possible.

Contract of service.

People near at hand should be called to witness the nature of the contract between a master and a servant. The wages fixed by mutual agreement shall be paid to the servant, but if no such wages have been fixed, then it will be in proportion to the time spent and the quality and quantity of the work done. If the wages be not settled, a cultivator shall generally obtain one-tenth of the crops grown by his labour, a herdsman one-tenth of the butter clarified by him, and a commercial agent one-tenth of the business transacted by him.¹

Artisans, artists, musicians, physicians, buffoons, etc., shall each get wages like others of his profession, or such wages as will be fixed by experts on evidence adduced. If no evidence be produced, it will be in proportion to the work performed. Fines are imposed for non-payment of wages, as also for denial of wages due.²

¹ Bk. III, p. 183, *Arthashastra*.

² *Ibid.*, p. 184.

A servant neglecting or not doing work for which he has been paid is fined 12 paṇas. When incapable of working, or refusing to work on the ground that he is diseased, distressed or that the work is servile, he may get exemption, or take leave to have the work performed by a substitute whose wages will be in proportion to work done by him.¹ An employer refusing to accept the work duly performed by a workman, as also an employee not doing the work for which he has been engaged, is fined 12 paṇas, and the latter must never desert his work for a more lucrative job elsewhere. If an employer does not accept the services of a workman who according to contract presents himself for it, the latter will be deemed to have done his full duty. This is the view of some legal authorities, but Kauṭilya differs from them, and holds that wages should be given only for work actually performed and not for that left completely unfinished. If, however, the employer works the labourer ever so little and then unreasonably dismisses him, the unfinished work will be looked upon as finished and wages cal-

¹ Lines 1 and 2, p. 185 of the text, seem to be defective.

culated accordingly. Variations of time or place are sufficient grounds for the annulment of a contract for service, and any work in excess of what is contracted for goes for nothing.

These rules also apply to workmen who have formed themselves into an association, with this difference that a grace of seven days is allowed them after the fixed period, after which they can have the work done by substitutes. Without the leave of the employer, they must never leave anything in the place of work or remove anything therefrom; for the former offence the fine is 12 *panas*, and for the latter 24. The members of an association may each receive the wages agreed to by him, or may divide the total wages earned by them all equally among themselves.¹

All agricultural labourer refusing to work for the person by whom he has been called from a different place, is fined twice the amount of his wages, and double the price of food and drink with which he may be provided. If he has been called for work in connexion with a sacrificial performance, he is fined twice his

¹ For the above, *vide* Bk. III, pp. 184, 185, *Arthashastra*.

wages on his refusal to work. The fines thus realized go to the village fund.¹

Partnership.

(a) Traders or cultivators who engage in work after joining partnership shall apportion among themselves the profits, after the performance of the work in hand and before entering on a fresh one. The performance of work by a substitute does not abate the share of profit due to a partner. The traders shall have shares of profit of the partnership business immediately after the commodities in stock are sold out. The losses sustained by the goods during transmission are to be borne by the partners equally.

A partner deserting his work is fined 12 panas, for he cannot withdraw from the business at will after it has been commenced. Theft committed by a partner for the first time should be pardoned and his dues paid; but a second such offence, as also his second untimely withdrawal, causes his expulsion from partnership. In grave offences, he is, in addition, treated as a criminal.

¹ Bk. III, p. 178, *ibid.*

The shares of profits of the partners may be equal or otherwise, according to contract among themselves.¹

(b) Priests officiating at a sacrifice shall share their earnings equally or as agreed to, over and above what may be specially due to each for his portion of work.

In sacrifices like *Agnishtoma* :—

A priest dying after the rite of Consecration is entitled to one-fifth of what he would have received for his full work.

A priest dying after the rite of Soma-purchase is entitled to one-fourth of what he would have received for his full work.

A priest dying between the rite of *Madhyamopasat* and end of that of *Pravargyodvâsana* is entitled to one-third of what he would have received for his full work.

A priest dying after the rite of *Maya* is entitled to one-half of what he would have received for his full work.

A priest dying after the rite of *Prâtahsavana* (libation of Soma during *Sutya* ceremony) is entitled to three-fourths of what he would have received for his full work.

¹ For the above, *vide* Bk. III, pp. 185, 186, *Arthashastra*.

A priest dying after the rite of Madhyandina is entitled to the whole share, for by that time the sacrificial fees are all paid.

In every sacrifice except Brīhaspatisavana the sacrificial fee is paid.

The above rules also apply to the fees paid during the series of sacrificial days called Ahargana.

During the ten days immediately following the death of an officiating priest, his work is performed either by those who are given their dues from the remnants of the offerings after the share of the deceased is paid, or by those who enjoyed his confidence.¹

The death of the sacrificer himself must not put an untimely stop to the sacrifice: the priests are bound to finish it. The desertion of a priest or a sacrificer, one by the other, is punished with the first amercement. If the priest be a Brāhmaṇa who does not maintain a perpetual sacred fire, he is fined 100 panas, while the head priest and the sacrificer are each fined 1000 panas for such offence.

¹ The time-limit is ten days, because the near relatives of the deceased remain in mourning during the period. They continue the work after the lapse of the period.

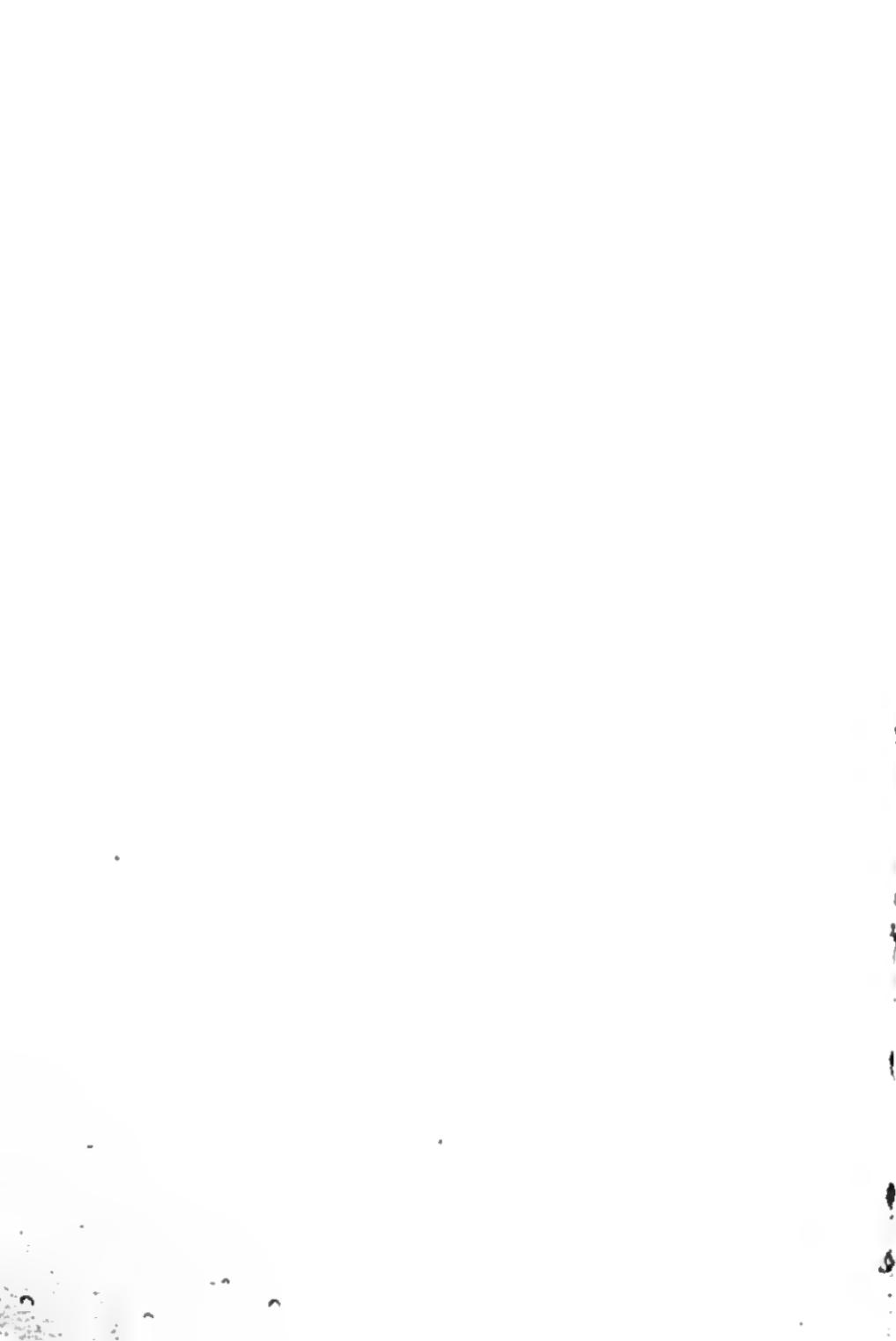
As a sacrifice is defiled if an officiating priest happens to be the husband of a Sūdra wife, a thief, spirit-drinker, Brāhmaṇ-slayer, violator of teacher's bed, or receiver of condemned gifts, it is no offence to dispense with his services.¹

Contracts of common interest.

If preparations are made for a public entertainment, an individual may help it up at will, either by subscription or otherwise; but in case he does not join it, then he and his dependents lose the right of enjoying it. Seeing or hearing stealthily at the place of entertainment is punishable with fines.²

¹ For the above, *vide* Bk. III, p. 186, Arthaśāstra.

² Bk. III, p. 178, Arthaśāstra.



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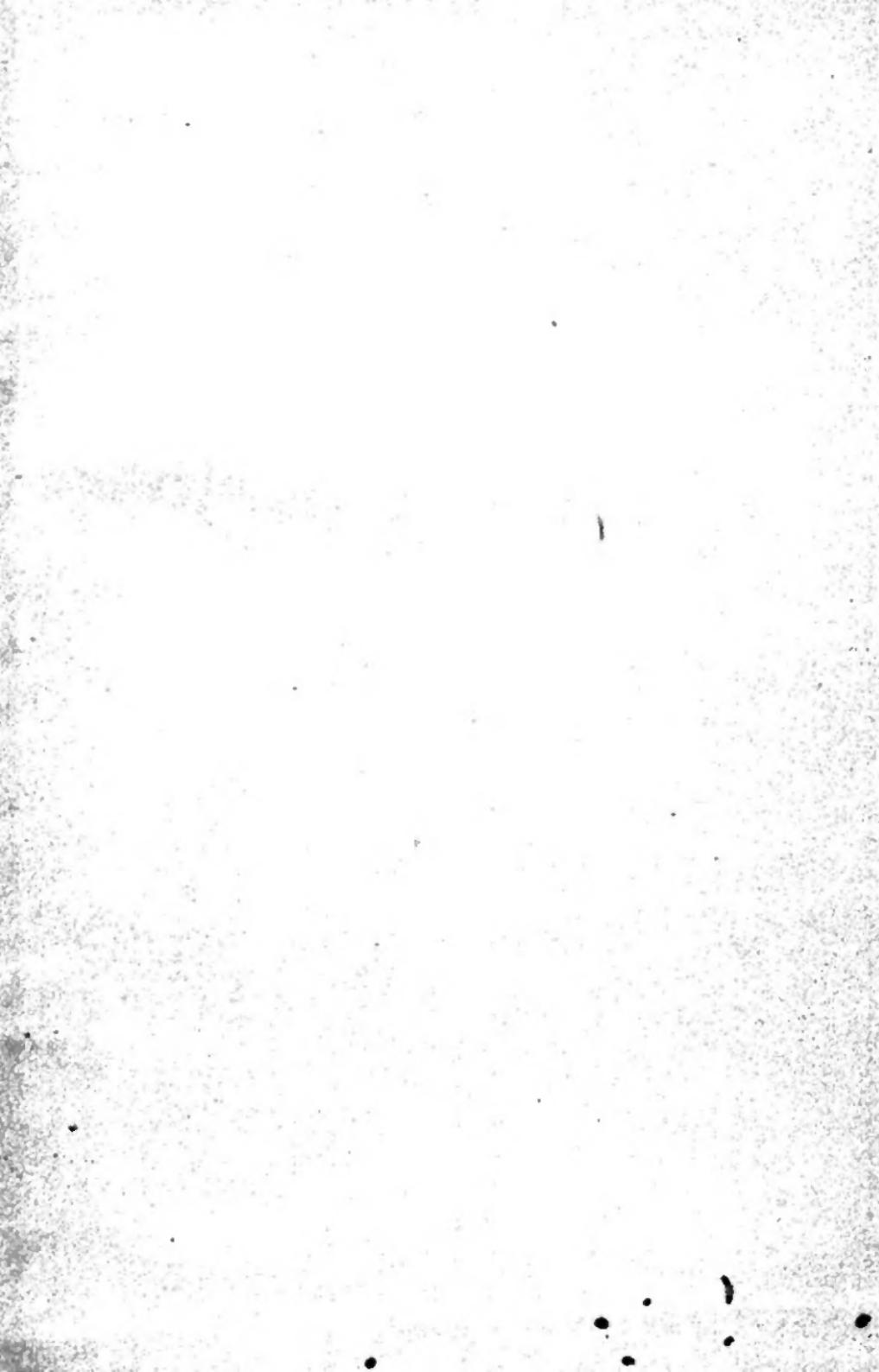
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25.2

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